KENWOOD

DNN990HD
DNN770HD

CONNECTED NAVIGATION SYSTEM
INSTRUCTION MANUAL

JVCKENWOOD Corporation

Before reading this manual, click the button below to check the latest edition and the modified pages.
http://manual.kenwood.com/edition/im365/

Check the latest edition

Take the time to read through this instruction manual.
Familiarity with installation and operation procedures will help you obtain the best performance from your new Navigation System.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your Kenwood dealer for information or service on the product.

Model DNN990HD/ DNN770HD Serial number ______________

US Residence Only

Register Online

Register your Kenwood product at **www.Kenwoodusa.com**

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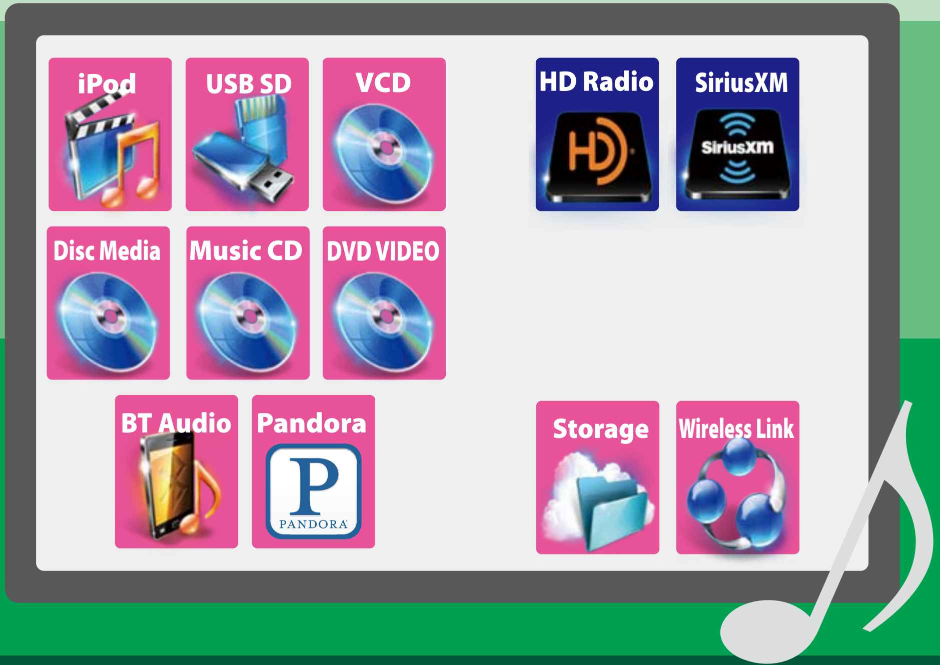
What Do You Want To Do?

Thank you for purchasing the KENWOOD CONNECTED NAVIGATION SYSTEM.
In this manual, you will learn various convenient functions of the system.

Click the icon of the media you want to play.

With one-click, you can jump to the section of each media!



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Before Use

⚠ WARNING

To prevent injury or fire, take the following precautions:

- To prevent a short circuit, never put or leave any metallic objects (such as coins or metal tools) inside the unit.
- Do not watch or fix your eyes on the unit's display when you are driving for any extended period.
- If you experience problems during installation, consult your Kenwood dealer.

Precautions on using this unit

- When you purchase optional accessories, check with your Kenwood dealer to make sure that they work with your model and in your area.
- You can select language to display menus, audio file tags, etc. See *Language setup (P.130)*.
- The Radio Data System or Radio Broadcast Data System feature won't work where the service is not supported by any broadcasting station.

Protecting the monitor

To protect the monitor from damage, do not operate the monitor using a ball point pen or similar tool with the sharp tip.

Cleaning the unit

If the faceplate of this unit is stained, wipe it with a dry soft cloth such as a silicon cloth. If the faceplate is stained badly, wipe the stain off with a cloth moistened with neutral cleaner, then wipe it again with a clean soft dry cloth.

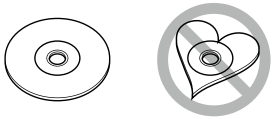
⚠
- Applying spray cleaner directly to the unit may affect its mechanical parts. Wiping the faceplate with a hard cloth or using a volatile liquid such as thinner or alcohol may scratch the surface or erase screened print.

Lens fogging

When you turn on the car heater in cold weather, dew or condensation may form on the lens in the disc player of the unit. Called lens fogging, this condensation on the lens may not allow discs to play. In such a situation, remove the disc and wait for the condensation to evaporate. If the unit still does not operate normally after a while, consult your Kenwood dealer.

Precautions on handling discs

- Do not touch the recording surface of the disc.
- Do not stick tape etc. on the disc, or use a disc with tape stuck on it.
- Do not use disc type accessories.
- Clean from the center of the disc and move outward.
- When removing discs from this unit, pull them out horizontally.
- If the disc center hole or outside rim has burrs, use the disc only after removing the burrs with a ballpoint pen etc.
- Discs that are not round cannot be used.



- 8-cm (3 inch) discs cannot be used.
- Discs with coloring on the recording surface or discs that are dirty cannot be used.
- This unit can only play the CDs with COMPACT disc DIGITAL AUDIO, COMPACT disc DIGITAL AUDIO Recordable, COMPACT disc DIGITAL AUDIO ReWritable.
  This unit may not correctly play discs which do not have the mark.
- You cannot play a disc that has not been finalized. (For the finalization process see your writing software, and your recorder instruction manual.)

About the personal information stored in this unit

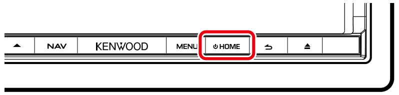
Before giving or selling this unit to others, be sure to delete the information (mail, search logs, etc.) stored in this unit by yourself and confirm that the data has been deleted.

We shall not be liable for any damage caused by leakage of undeleted data.

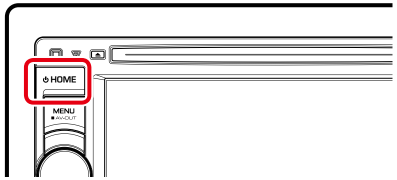
How to delete

1 | Press the <HOME> button.

DNN990HD

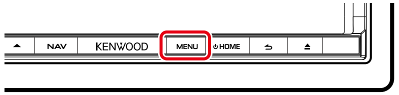


DNN770HD



2 | Press the <MENU> button.

DNN990HD



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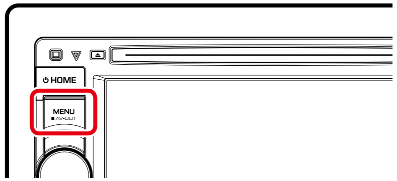
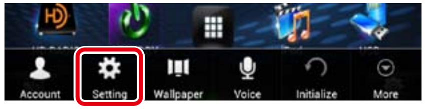
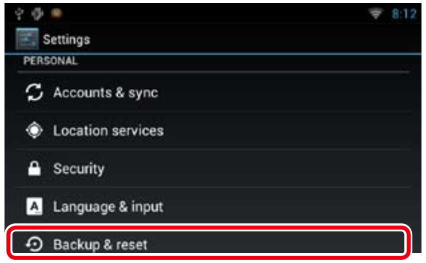


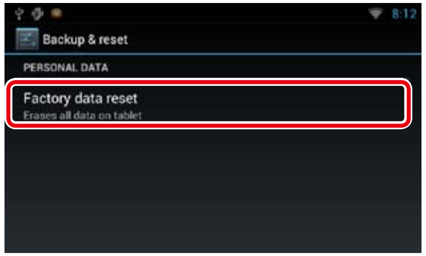
3 | Touch [Settings].



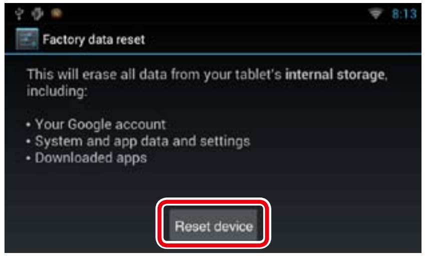
4 | Touch [Backup & Reset].



5 | Touch [Factory data reset].



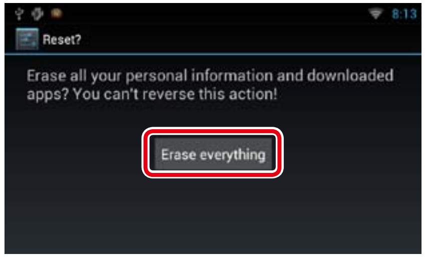
6 | Touch [Reset device].



This will erase all data from your tablet's **internal storage**, including:

- Your Google account
- System and app data and settings
- Downloaded apps

7 | Touch [Erase everything].



Erase all your personal information and downloaded apps? You can't reverse this action!

How to Read this Manual

Return to the Top page
CD, Disc, iPod, USB device

Search Operation

You can search music, video or picture files by the following operations.

NOTE

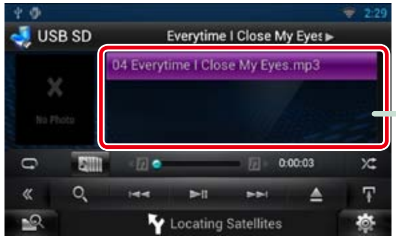
- If you use a remote controller, you can jump directly to the desired track/file with entering the track/folder/file number, play time, etc. For details, see *Direct search mode (P.149)*.

List search

You can search tracks, folders, and files according to hierarchy.

1 | **Touch illustrated area.**
List Control screen appears.

2 | **Touch desired track/file.**



Playback starts.

Other search

When you want to narrow the list down, there are other search ways.
This function is not available when music CD is the current source.

1 | **Touch [🔍] in the control screen.**
The search type screen appears.

2 | **Touch desired search way.**

30

Link header
You can refer each section or top page with one-click.

Operation title
Introduces the function.

NOTE
Introduces some tips, notes, etc.

Reference mark
Displayed in blue notes.
With one-click, you can jump to the article related to the current section.

Operation procedure
Explains necessary procedures to achieve the operation.
< >: Indicates the name of panel buttons.
[ ]: Indicates the name of touch keys.

Screen shot
Shows some screen shots displayed during operation for reference.
The area or keys to touch are surrounded with a red frame.

NOTE

- The screens and panels shown in this manual are examples used to provide clear explanations of the operations.
  For this reason, they may be different from the actual screens or panels used, or some display patterns may be different.

Features of Navigation systems

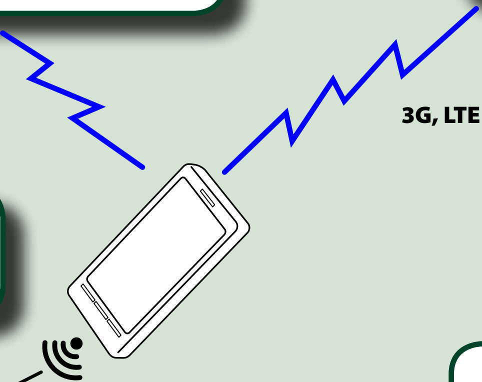
By connecting this navigation system to Internet, you can use various services.

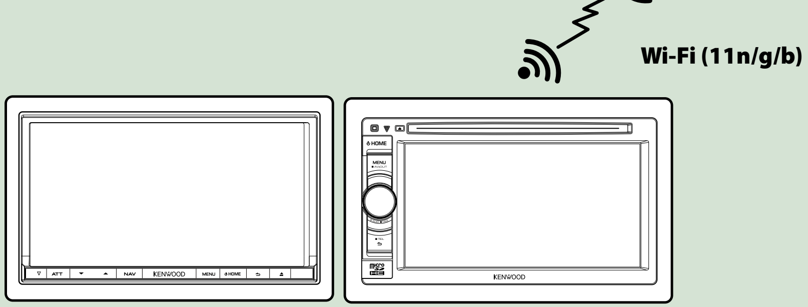
Cooperation with Route Collector site

- Destinations and routes specified on the PC can be input to this navigation system.
- The routes you have traveled and the songs you have listened to can be logged. *(P.29)*
- By uploading music files to Dropbox and creating a play list on Route Collector site, you can listen to music anywhere through streaming without music files on this navigation system. *(P.82)*
- Speech to Text (STT) and Text to Speech (TTS).

Wi-Fi access point

- Connect to Internet using the tethering function of your smartphone or an Internet device.





- Media player for DVD video, CD, USB memory, SD card, iPod, etc.
- HD Radio Technology and SiriusXM Satellite Radio.
- Navigation

Use of internet service

- Streaming service such as YouTube, Aupeo!, iHeartRadio.
- Internet service such as email, Gmail, Google calendar, and social networking service such as Facebook and Twitter.
- Information (weather, traffic, RSS, etc.) service.

About the account

- To use internet services via this system, you need to create an account in the Route Collector site.
- In addition to the owner account, you can register up to four user accounts.
- You can use a guest account as well.
- By switching among accounts, you can secure the privacy when using the mail feature or social media.

For details, see *About Account (P.36)*.
http://www.route-collector.com/

Notes

You can use following feature for 2 years after registration of the owner account. To use it continuously, a usage fee is required. For details, see web site of Route Collector.
http://www.route-collector.com/

- Weather (by INRIX)
- Traffic (by INRIX)
- Dynamic Parking (by INRIX)
- Fuel Prices (by INRIX)
- Real-Time Traffic Camera (by INRIX)
- Movie Show Times (by WWM)
- TTS (by Nuance)
- STT (by Nuance)

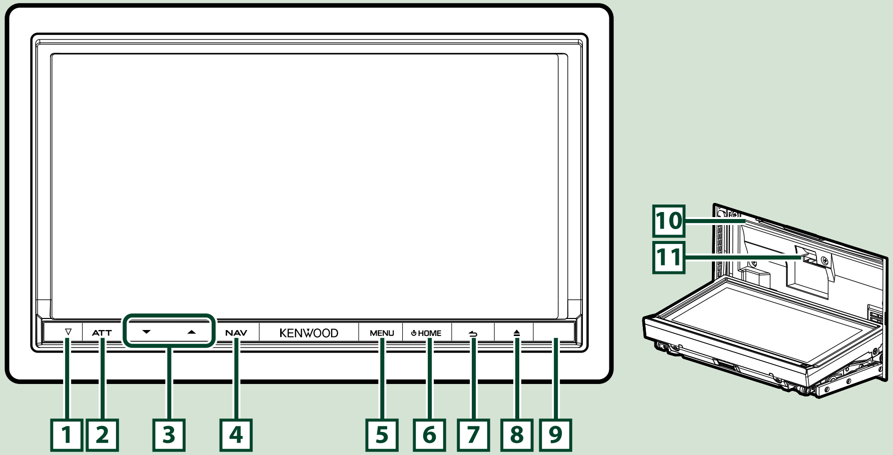
To use the following services, you need to register the corresponding free or paid accounts.

- Aupeo!
- Facebook
- Twitter
- Gmail (by Google)
- Google calendar (by Google)
- Dropbox
- iHeartRadio

Basic Operations

Functions of the Buttons on the Front Panel

DNN990HD

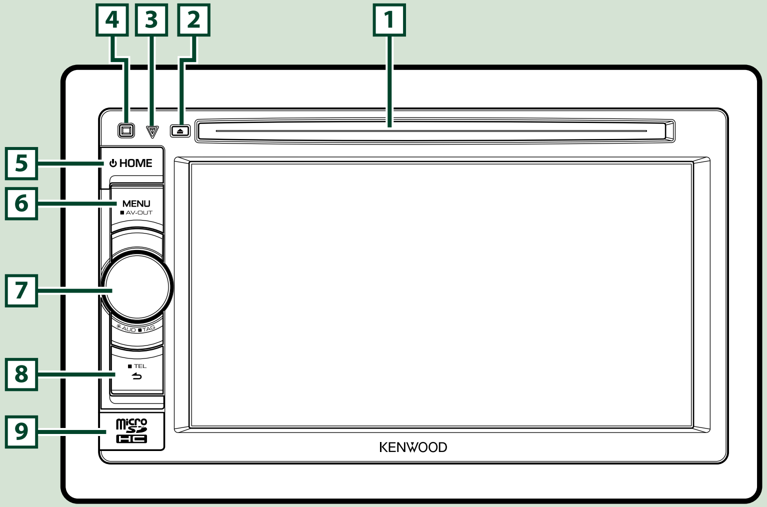


NOTE

- The panels shown in this guide are examples used to provide clear explanations of the operations. For this reason, they may be different from the actual panels.

Number	Name	Motion
1	▽ (Reset)	• If the unit or the connected unit fails to operate properly, the unit returns to initial settings when this button is pressed ***(P.157)***. • If the SI function is turned on, this indicator flashes when the vehicle ignition is off ***(P.130)***.
2	ATT	• Switches attenuation of the volume on/off. • Pressing for 1 second stores the tag data of the current music from HD Radio broadcast ***(P.94)*** or SiriusXM ***(P.103)***.
3	▼, ▲ (Vol)	Adjusts volume.
4	NAV	• Displays the navigation screen. • Pressing for 1 second switches camera view display on/off.
5	MENU	• Displays the option menu screen. • Pressing for 1 second switches AV out sources.
6	HOME	• Displays the Home screen ***(P.22)***. • Pressing for 1 second turns the power off. • When the power off, turns the power on.
7	⮌ (Back)	• Return to the previously viewed screen. • Pressing for 1 second displays the Hands Free screen ***(P.114)***.
8	⏏ (Eject)	• Ejects the disc. • When the panel is opened, pressing closes the panel and pressing for 1 second ejects the disc forcibly. • When the panel is closed, pressing for 1 second fully opens the panel to the location of the SD card slot.
9	Remote Sensor	Receives the remote control signal.
10	Disc insert slot	A slot to insert a disc media.
11	SD card slot	A slot to insert an SD card.

DNN770HD



NOTE

- The panels shown in this guide are examples used to provide clear explanations of the operations. For this reason, they may be different from the actual panels.

  If above icons are showed, read the article applicable to the unit you use.

Number	Name	Motion
1	Disc insert slot	A slot to insert a disc media.
2	⏏ (Eject)	• Ejects the disc. • Pressing for 1 second ejects the disc forcibly.
3	▽ (Reset)	• If the unit or the connected unit fails to operate properly, the unit returns to initial settings when this button is pressed ***(P.157)***. • If the SI function is turned on, this indicator flashes when the vehicle ignition is off ***(P.130)***.
4	Remote Sensor	Receives the remote control signal.
5	HOME	• Displays the Home screen ***(P.22)***. • Pressing for 1 second turns the power off. • When the power off, turns the power on.
6	MENU	• Displays the option menu screen. • Pressing for 1 second switches AV out sources.
7	Volume Knob	• Turning adjusts volume up or down. • Displays the Tone Control screen ***(P.144)***.* • Pressing for 1 second stores the tag data of the current music from HD Radio broadcast***(P.94)*** or SiriusXM ***(P.103)***.
8	⮌ (Back)	• Return to the previously viewed screen. • Pressing for 1 second displays the Hands Free screen ***(P.114)***.
9	microSD card slot	A slot to insert an microSD card.

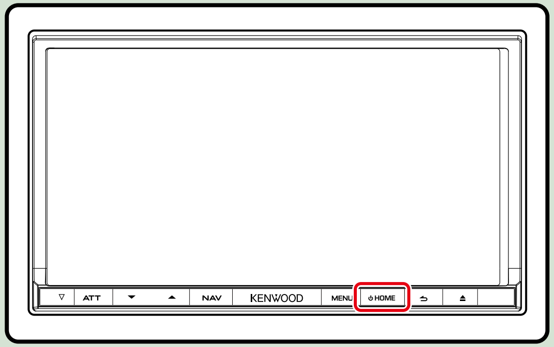
*** The display may not switch to the Tone Control screen in some conditions.**

Turning on the Navigation System

The method for turning on the power varies between different models.

DNN990HD

1 **Press the <HOME> button.**


ATT
NAV
KENWOOD
MENU
HOME

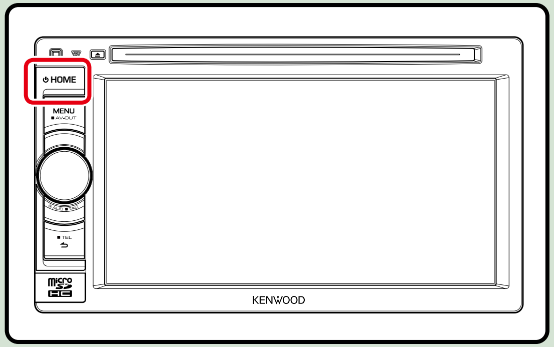
The navigation system is turned on.

● **To turn off the navigation system:**

Press the <HOME> button for 1 second.

DNN770HD

1 **Press the <HOME> button.**


HOME
MENU
KENWOOD

The navigation system is turned on.

● **To turn off the navigation system:**

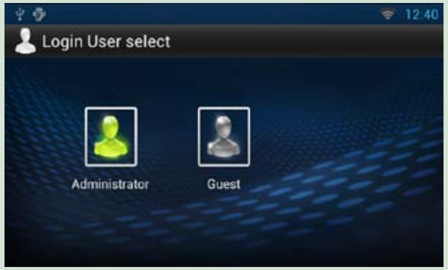
Press the <HOME> button for 1 second.

If it is your first time turning the navigation system on after installation, it will be necessary to perform *Initial setup (P.16)*.

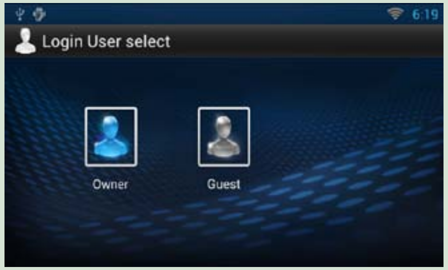
Login

1 **Select the login user.**

When the owner has not been registered

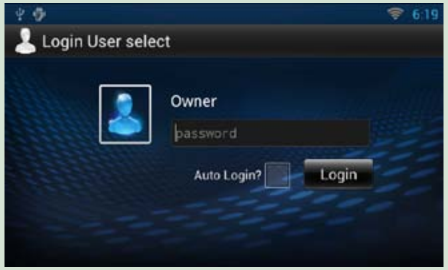

12:40
Login User select
Administrator
Guest

When the owner has been registered


6:19
Login User select
Owner
Guest

2 **Enter the password.**

When you selected Administrator or Guest, you do not need to enter a password.


6:19
Login User select
Owner
password
Auto Login?
Login

[Auto Login?]: Checking this checkbox allows you to log in to the system automatically from the next time.

3 **Touch [Login].**

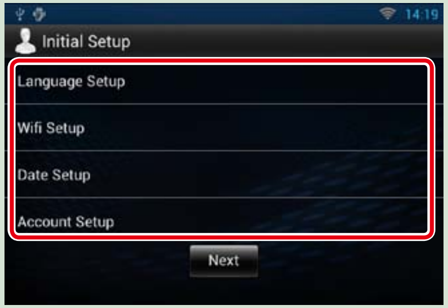
NOTE

- If you forgot your password, create your new password on the Route Collector site.
http://www.route-collector.com/

Initial setup

Perform this setup when you use this navigation system for the first time or when you reset the unit. See *Resetting the Navigation System (P.157)*.

1 Set each item as follows.


14:19
Initial Setup
Language Setup
Wifi Setup
Date Setup
Account Setup
Next

Language Setup

Select the language used for the GUI and input methods. Default is "English (United States)".

① Touch [Language Setup].
② Select a language from the list.
③ After setting, press the < ⮌ > button twice.

WiFi Setup

Configure settings for connection to Wi-Fi.

① Touch [WiFi Setup].
② Slide Wi-Fi to ON.
③ Select the Wi-Fi access point to register from the list.
④ Input the Password.
⑤ Touch [Connect].
⑥ After setting, press the < ⮌ > button.

For details on operation, see ***Wi-Fi Setup (P.32)***.

Date Setup

Set the date and time.

① Touch [Date Setup].
② Touch [Select time zone].
③ Select a time zone.
④ After setting, press the < ⮌ > button.

For details on operation, see ***Clock and Date Setup (P.34)***.

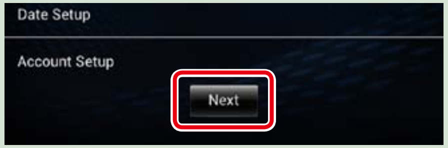
Account Setup

Set the information about the user of this navigation system.

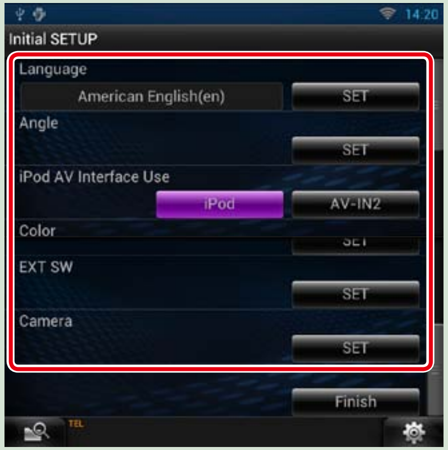
① Touch [Account Setup].

For details on operation, see ***About Account (P.36)***.

2 Touch [Next].


Date Setup
Account Setup
Next

3 Set each item as follows.


14:20
Initial SETUP
Language
American English(en)
SET
Angle
SET
iPod AV Interface Use
iPod
AV-IN2
Color
SET
EXT SW
SET
Camera
SET
Finish
TEL

Language

Select the language used for the control screen and setting items. Default is "American English (en)".

① Touch [SET].
② Touch [◄] or [►] to select the desired language.
③ Touch [Enter].

For details on operation, see ***Language setup (P.130)***.

Angle (DNN990HD only)

Adjust the position of the monitor. Default is "0".

① Touch [SET].
② Touch desired angle number and [⮌].

For details on operation, see ***Monitor angle control (P.132)***.

iPod AV Interface Use

Set the terminal which your iPod is connected to. Default is "iPod".

① Touch [iPod] or [AV-IN2].

Continued

Color

Set the screen and button illumination color. You can select whether to allow color scan operation or select a fixed color for operation.

① Touch [SET].
② Touch [ON] or [OFF] of [Panel Color Scan].
③ If you want to change color, touch [SET] of [Panel Color Coordinate].
④ Touch your desired color and [↩].

For details on operation, see ***Panel color coordinate (P.133)***.

EXT SW (DNN990HD only)

Control the external devices.

① Touch [SET].
② Set device name, output pattern, and pulse set for device. Then, touch [↩].

For details on operation, see ***EXT SW setup (P.131)***.

Camera

Set the parameters for the camera.

① Touch [SET].
② Set each item and touch [↩].

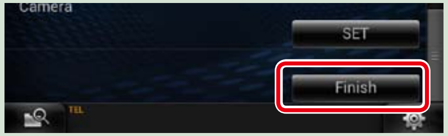
For details on operation, see ***Camera Setup (P.135)***.

Demo mode

Set the demonstration mode. Default is "ON".

① Touch [ON] or [OFF].

4 Touch [Finish].



NOTE

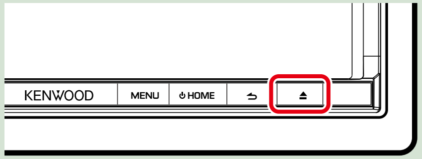
- These settings can be set from the SETUP menu. See ***Setting Up (P.128)***.

How to Play Media

Music CD and disc media

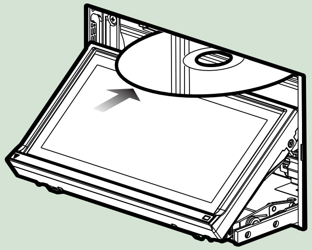
DNN990HD

1 Press the <⏏> button.



The panel opens.

2 Insert the disc into the slot.



The panel closes automatically.

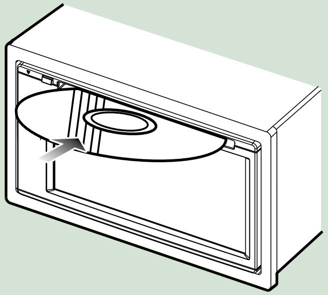
The unit loads the disc and playback starts.

- **To eject the disc:**

  Press the <⏏> button.

DNN770HD

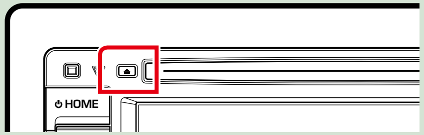
1 Insert the disc into the slot.



The unit loads the disc and playback starts.

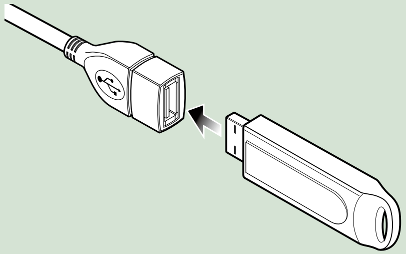
- **To eject the disc:**

  Press the <⏏> button.



USB device

1 Connect the USB device with the USB cable.



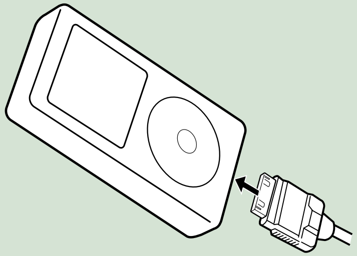
The unit reads the device and playback starts.

- **To disconnect the device:**

  Touch [⏏] on the screen and disconnect the device from the cable.

iPod

1 Connect the iPod with the iPod cable.



The unit reads the iPod and playback starts.

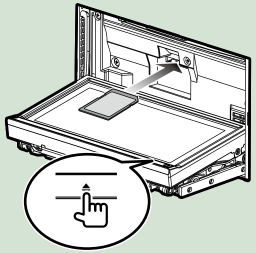
- **To disconnect the device:**

  Touch [«] on the screen and then touch [⏏]. Disconnect the iPod from the cable.

SD card

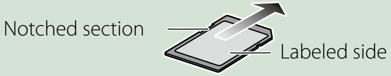
DNN990HD

1 Press the <⏏> button for 1 second to open the front panel.



The panel fully opens.

2 Hold the SD card as the diagram below and insert it into the slot until it clicks.



The unit loads the card and playback starts.

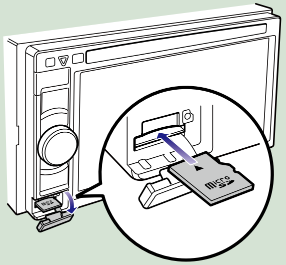
- **To remove:**

  Push the SD card until it clicks and then remove your finger from the card.

  The card pops up so that you can pull it out with your fingers.

DNN770HD

1 Open the microSD card slot cover as the illustration in the right.



2 Hold the microSD card with the label facing up and the notched section right, and insert it into the slot until it clicks.

The unit loads the card and playback starts.

- **To remove:**

  Push the microSD card until it clicks and then remove your finger from the card.

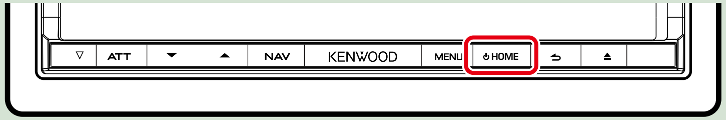
  The card pops up so that you can pull it out with your fingers.

Operation on the Home Screen

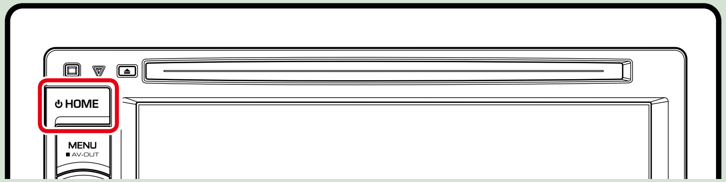
Most functions can be operated on the Home screen.

1 **Press the <HOME> button.**

DNN990HD

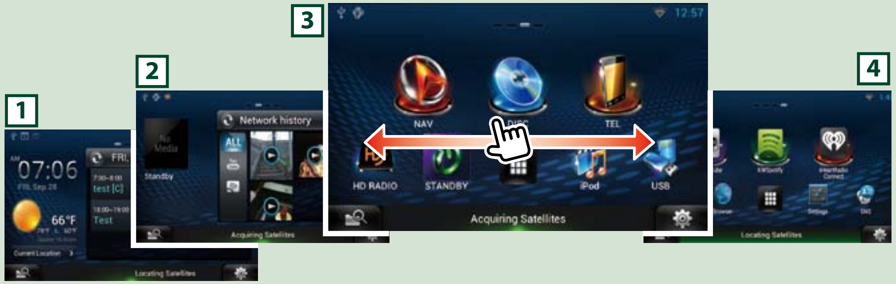

ATT
NAV
KENWOOD
MENU
HOME

DNN770HD


HOME
MENU
AV-OUT

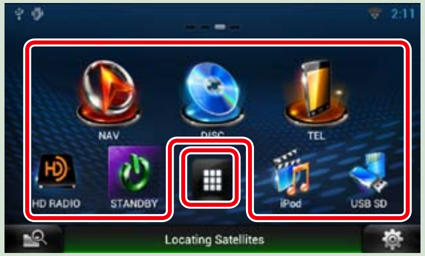
Home screen appears.

2 **Select the Service panel, Media panel, Source launcher panel, or Network contents panel.**


1
2
3
4
07:06
Network history
NAV
DISC
TEL
HD RADIO
STANDBY
iPod
USB
Acquiring Satellites
Locating Satellites
12:57

Panel	Description
1 Service panel	Weather widget: Displays the weather forecast for the selected region. Network widget: Displays the schedule, SNS, or RSS.
2 Media panel	Now playing: Displays the title of the song being played or the name of the station you are listening to, and allows you to perform simple operations. Media widget: Allows you to switch among Network media history for selecting a song from the history of the songs you listened to, and Photo frame for displaying a photo.
3 Source launcher panel	Allows you select a source.
4 Network contents panel	Allows you to select a network-related application.

Source launcher panel and Network contents panel


2:11
NAV
DISC
TEL
HD RADIO
STANDBY
iPod
USB SD
Locating Satellites

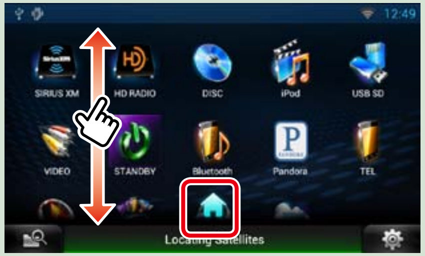
(Shortcut)

You can register sources and applications you use frequently so that you can start them quickly.

▦ (All source list/ All apps list)

Displays all sources and applications.

All source list/ All apps list


12:49
SIRIUS XM
HD RADIO
DISC
iPod
USB SD
VIDEO
STANDBY
Bluetooth
Pandora
TEL
Locating Satellites

(All source list/ All apps list)

You can scroll the list screen by flicking the screen up/down.

⌂ (Home)

Returns to the Source launcher panel or the Network contents panel.

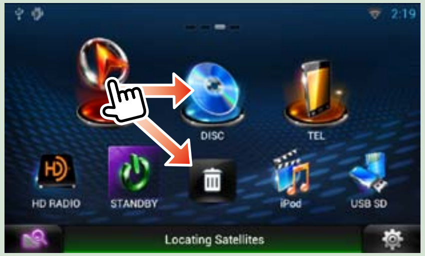
From All source list, you can perform the following functions.

Function	Icon	Operation
Switch the audio source	USB SD iPod etc.	Touch the icon of the desired source.
Display navigation screen	NAV or 6.6 mi Exit 222A: I-435	Touch [NAV] or navigation information.
Turn off all audio function	STANDBY	Touch [STANDBY].
Vehicle information display	OEM	Touch [OEM].

Moving or deleting of an icon on the Source launcher panel and Network contents panel

1 **Touch and hold the icon.**

2 **Drag the icon to the desired position or Recycle Bin.**

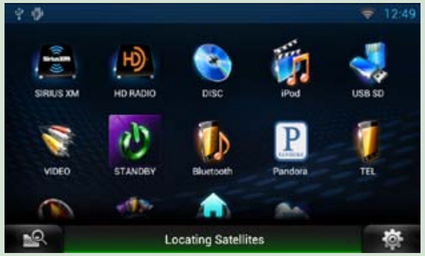

2:19
DISC
TEL
HD RADIO
STANDBY
iPod
USB SD
Locating Satellites

Adding of a shortcut icon to Source launcher panel or Network contents panel

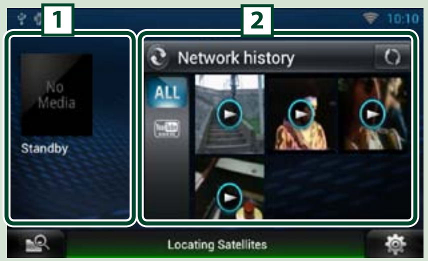
1 **Touch [▦] in Source launcher panel or Network contents panel.**

2 **Touching the icon continuously to display the Source launcher panel or Network contents panel screen.**

3 **Drag the icon to an empty space.**


12:49
SIRIUS XM
HD RADIO
DISC
iPod
USB SD
VIDEO
STANDBY
Bluetooth
Pandora
TEL
Locating Satellites

Media panel


1
2
10:10
No Media
Standby
Network history
ALL
Locating Satellites

1 Now playing widget

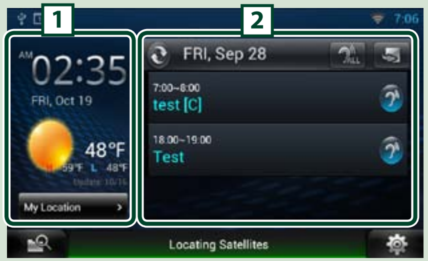
Displays the title of the song being played or the name of the station you are listening to, and allows you to perform simple operations.
See *Now playing Widget (P.52)*.

2 Media widget

Touching [⟳] allows you to switch among Network media history, and photo frame.

See *Network Media History Widget (P.54)*, *Photo Frame Widget (P.54)*.

Service panel


1
2
7:06
AM 02:35
FRI, Oct 19
48°F
59°F L 48°F
My Location
FRI, Sep 28
7:00~8:00
test [C]
18:00~19:00
Test
Locating Satellites

1 Weather widget

Displays the today's weather forecast.

See *Weather Widget (P.40)*.

2 Network widget

Touching [⟳] allows you to switch between Schedule, RSS, and SNS.

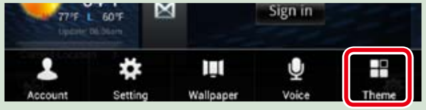
See *Today Widget (P.43)*, *SNS Widget (P.43)*, *RSS Widget (P.44)*.

Change the skin for home screen

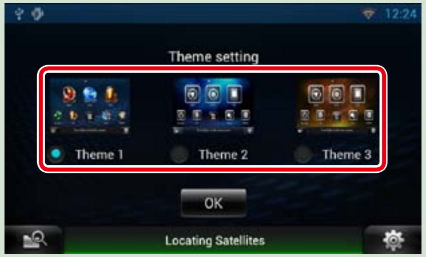
You can select a home screen skin from 3 types.

1 **Press the <MENU> button.**

2 **Touch [▦ Theme].**


77°F L 60°F
Sign in
Account
Setting
Wallpaper
Voice
Theme

3 **Select a skin.**


12:24
Theme setting
Theme 1
Theme 2
Theme 3
OK
Locating Satellites

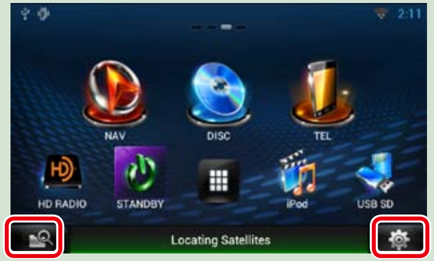
4 **Touch [OK].**

Common Operation

Introduces the common operation.

General

There are some functions which can be operated from most screens.


2:11
NAV
DISC
TEL
HD RADIO
STANDBY
iPod
USB SD
Locating Satellites

(Mixed Media Search)

Touch to display the Mixed Media Search screen.

(Quick menu)

Touch to display the quick menu. The content of the menu are as follows.

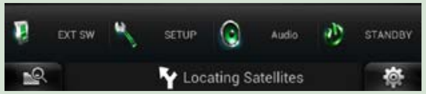
: Touch to turn on or off the external device power supply.

: Displays the SETUP Menu screen.

: Displays the Audio Control Menu screen.

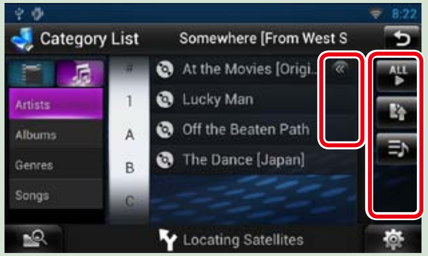
: Displays the control screen of current source. Icon feature differs depending on the source.

Quick menu screen


EXT SW
SETUP
Audio
STANDBY
Locating Satellites

List screen

There are some common function keys in the list screens of most sources.


8:22
Category List
Somewhere [From West S
Artists
Albums
Genres
Songs
1
A
B
C
At the Movies [Origi..
Lucky Man
Off the Beaten Path
The Dance [Japan]
ALL
Locating Satellites

(Scroll)

Touch to scroll through texts on the display.

etc.

Touch keys with various functions are displayed here.

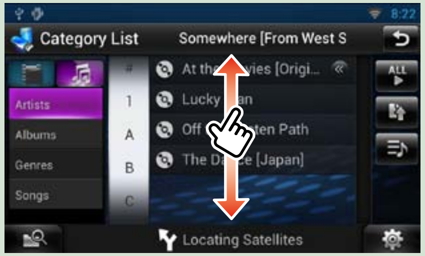
Displayed keys differ depending on the current audio source, status, etc.

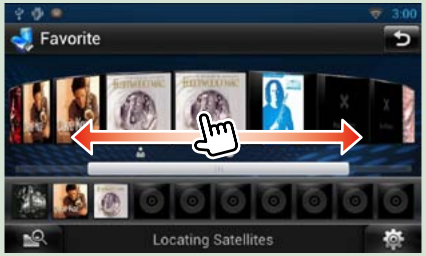
For examples of functions of each key, refer to the table below.

Key	Function
ALL ▶	Lists all the music in the lower hierarchy.
	Moves to the upper hierarchy.
	Displays current category folder.
♫	Displays music/movie file list.

Flick scrolling

You can scroll the list screen by flicking the screen up/down or right/left.


8:22
Category List
Somewhere [From West S
Artists
Albums
Genres
Songs
ALL
Locating Satellites


3:00
Favorite
Locating Satellites

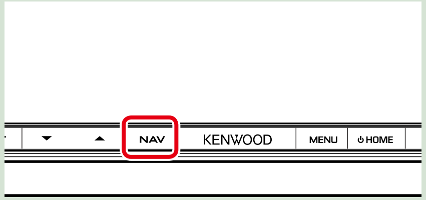
Navigation Operation

For details on the navigation function, please refer to the Navigation Instruction Manual.

Display the navigation screen

DNN990HD

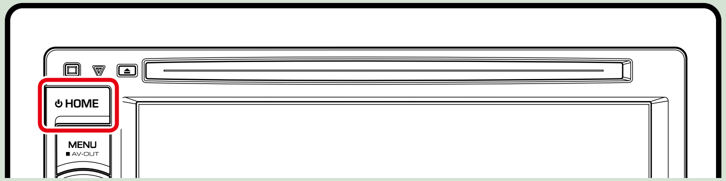
1 Press the <NAV> button.


NAV
KENWOOD
MENU
HOME

The navigation screen appears.

DNN770HD

1 Press the <HOME> button.


HOME
MENU
AV-OUT

2 Select the Source launcher panel.

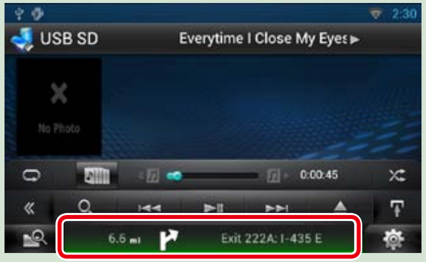
3 Touch [NAV].

The navigation screen appears.

Control audio from the navigation screen

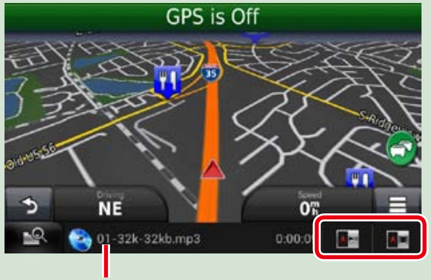
You can control audio sources while the navigation screen is displayed.
Also, you can view the navigation information while the source control screen is displayed.

1 Touch the information bar.


2:30
USB SD
Everytime I Close My Eyes
No Photo
0:00:45
6.6 mi
Exit 222A: I-435 E

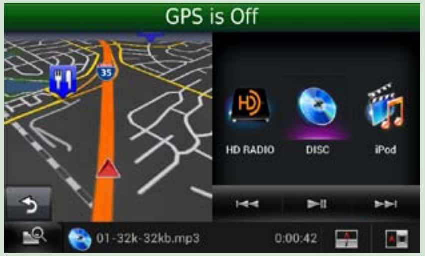
The navigation screen with audio information appears.

2 Touch [ ] or [ ] in the navigation screen.

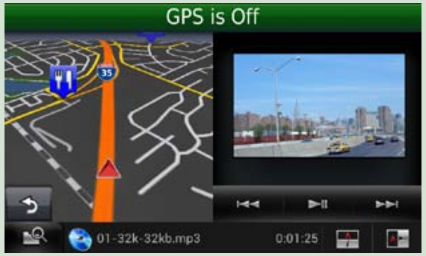

GPS is Off
NE
01-32k-32kb.mp3

Touching this area displays the audio screen.

[ ]: Displays the navigation and control keys of the current source.


GPS is Off
HD RADIO
DISC
iPod
01-32k-32kb.mp3
0:00:42

[ ]: Displays the navigation and current video/picture playback display.


GPS is Off
01-32k-32kb.mp3
0:01:25

NOTE

- The screen switches between playback screen and camera view each time the viewing area is touched.
- Touching the source icon in the bottom of the screen displays the full audio screen.

● **To return to the full navigation screen:**

Touch [ ].

NOTE

- For details on control keys, refer to the instructions in each section.

Trip log function

You can upload the routes you traveled and the songs you listened to the Route Collector site so that you can confirm them later.

1 Press the <MENU> button in the navigation screen or source control screen.

2 Touch [Triplog On].

3 Touch [Yes].

When the Trip log is active, " " appears in the status bar.

NOTE

- You can use the Trip log function when you have logged in the system as Owner or User.

OEM Feature Operation

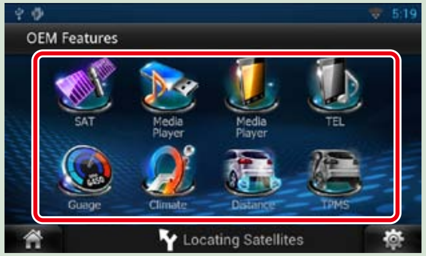
By connecting this navigation system to the bus system of the vehicle using an ADS (commercially available), this navigation system can access the satellite radio source provided for the vehicle and vehicle information can be displayed on this navigation system.

1 Press the <HOME> button.

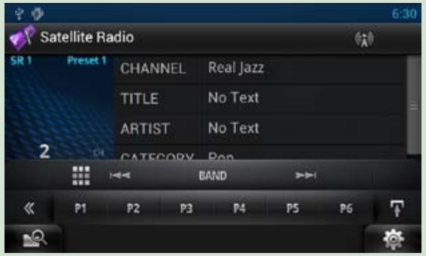
2 Touch [▦] in the Source launcher panel.

3 Touch [OEM].

OEM Features screen appears.

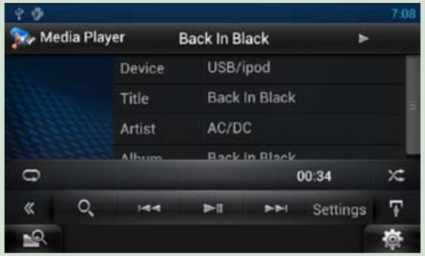

5:19
OEM Features
SAT
Media Player
Media Player
TEL
Guage
Climate
Distance
TPMS
Locating Satellites

: Displays the control screen of the satellite radio source provided for the vehicle.


6:30
Satellite Radio
SR 1
Preset 1
2
BAND
P1
P2
P3
P4
P5
P6

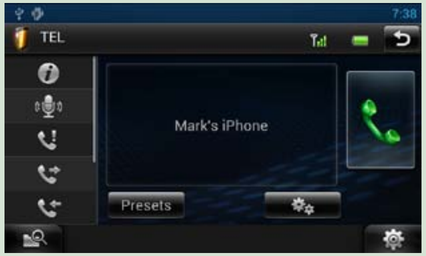
CHANNEL Real Jazz
TITLE No Text
ARTIST No Text

: Displays the control screen of the media player source provided for the vehicle.

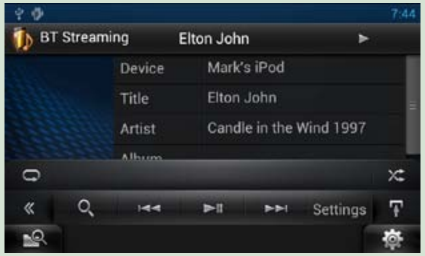

7:08
Media Player
Back In Black
00:34
Settings

Device USB/ipod
Title Back In Black
Artist AC/DC

: Displays the control screen of the Bluetooth Hands Free function provided for the vehicle.

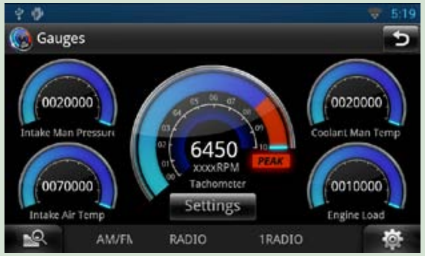

7:38
TEL
Mark's iPhone
Presets

: Displays the control screen of the Bluetooth streaming source provided for the vehicle.

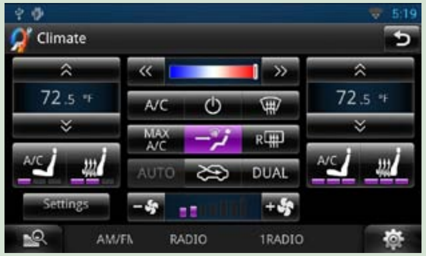

7:44
BT Streaming
Elton John
Settings

Device Mark's iPod
Title Elton John
Artist Candle in the Wind 1997

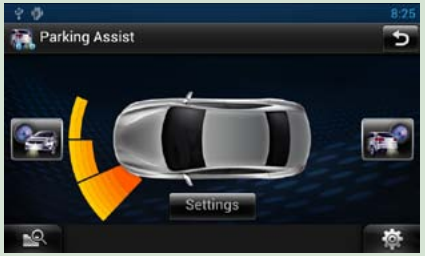
: Displays information about the instruments such as a speedometer.


5:19
Gauges
0020000
Intake Man Pressure
0020000
Coolant Man Temp
6450
xxxxRPM
Tachometer
PEAK
0070000
Intake Air Temp
0010000
Engine Load
Settings
AM/FM
RADIO
1RADIO

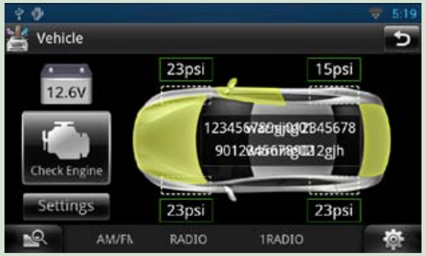
: Displays information about the air conditioner of the vehicle.


5:19
Climate
72.5 °F
72.5 °F
A/C
MAX A/C
AUTO
DUAL
Settings
AM/FM
RADIO
1RADIO

: Displays information about the Parking Distance Sensor of the vehicle.


8:25
Parking Assist
Settings

: Displays information about the tire pressures of the vehicle.


5:19
Vehicle
12.6V
Check Engine
23psi
15psi
23psi
23psi
Settings
AM/FM
RADIO
1RADIO

NOTE

- Displayable screens, button names, and screen names vary depending on the type of the connected iDataLink and the model of the vehicle. For more details, access the following URL:
  www.idatalink.com/

Wi-Fi Setup

Wi-Fi Setup

You can connect to a Wi-Fi access point to connect to Internet.

Preparation

- Make preparations for using the Wi-Fi access point for Internet connection through use of the tethering function of the smartphone.

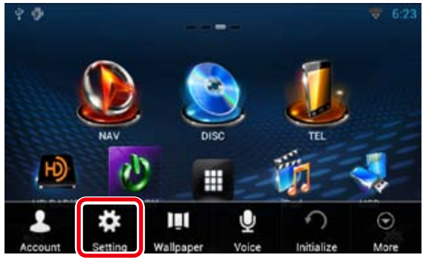
1 | **Press the <HOME> button to display the Home screen.**

Note

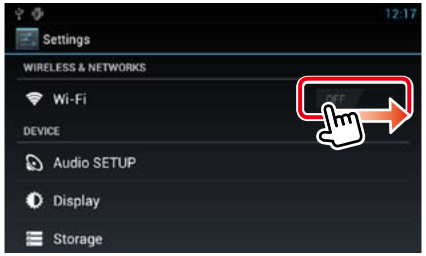
- To display the Network contents panel, Press the <HOME> button again.

2 | **Press the <MENU> button.**

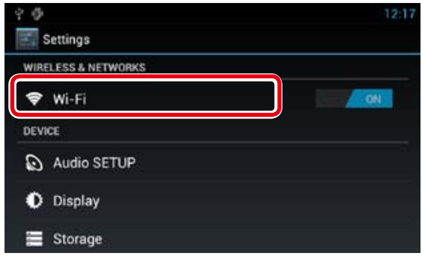
3 | **Touch [Setting].**


6:23
NAV
DISC
TEL
Account
Setting
Wallpaper
Voice
Initialize
More

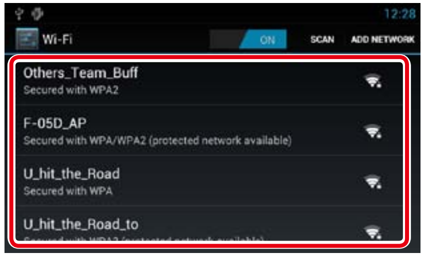
4 | **Slide Wi-Fi to ON.**


12:17
Settings
WIRELESS & NETWORKS
Wi-Fi
OFF
DEVICE
Audio SETUP
Display
Storage

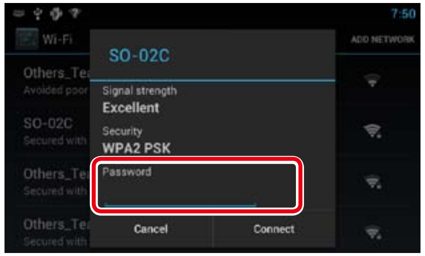
5 | **Touch [Wi-Fi].**


12:17
Settings
WIRELESS & NETWORKS
Wi-Fi
ON
DEVICE
Audio SETUP
Display
Storage

6 | **Select the Wi-Fi access point to register from the list.**


12:28
Wi-Fi
ON
SCAN
ADD NETWORK
Others_Team_Buff
Secured with WPA2
F-05D_AP
Secured with WPA/WPA2 (protected network available)
U_hit_the_Road
Secured with WPA
U_hit_the_Road_to

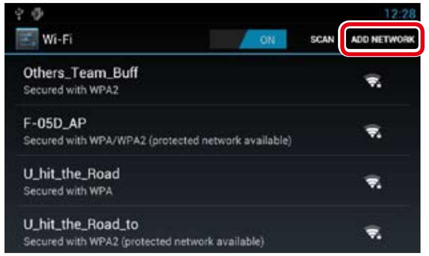
7 | **Input the Password.**


7:50
Wi-Fi
ADD NETWORK
SO-02C
Signal strength
Excellent
Security
WPA2 PSK
Password
Cancel
Connect

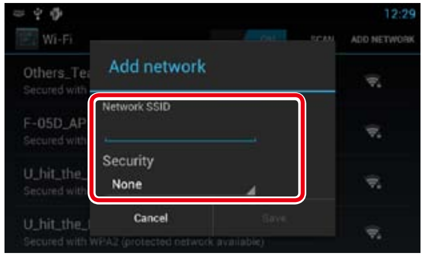
8 | **Touch [Connect].**

Register the Wi-Fi access point manually

1 | **Touch [ADD NETWORK].**


12:28
Wi-Fi
ON
SCAN
ADD NETWORK
Others_Team_Buff
Secured with WPA2
F-05D_AP
Secured with WPA/WPA2 (protected network available)
U_hit_the_Road
Secured with WPA
U_hit_the_Road_to
Secured with WPA2 (protected network available)

2 | **Input the SSID code.**


12:29
Add network
Network SSID
Security
None
Cancel
Save

3 | **Select the security.**

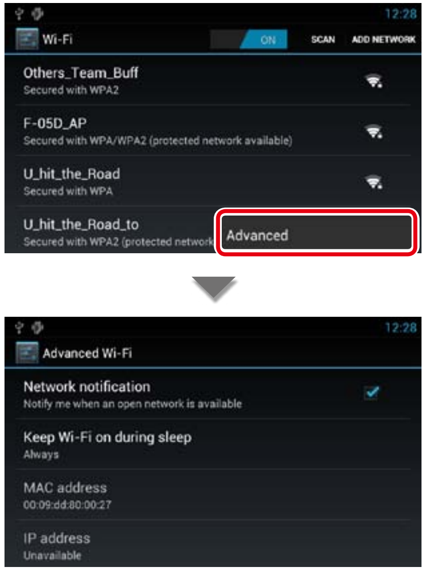
4 | **Input the security code.**

5 | **Touch [SAVE].**

Confirm the MAC address

1 | **Press the <MENU> button.**

2 | **Touch [Advanced].**


12:28
Wi-Fi
ON
SCAN
ADD NETWORK
Others_Team_Buff
Secured with WPA2
F-05D_AP
Secured with WPA/WPA2 (protected network available)
U_hit_the_Road
Secured with WPA
U_hit_the_Road_to
Secured with WPA2 (protected network
Advanced
12:28
Advanced Wi-Fi
Network notification
Notify me when an open network is available
Keep Wi-Fi on during sleep
Always
MAC address
00:09:dd:80:00:27
IP address
Unavailable

3 | **Press the < ⮌ > button.**

Clock and Date Setup

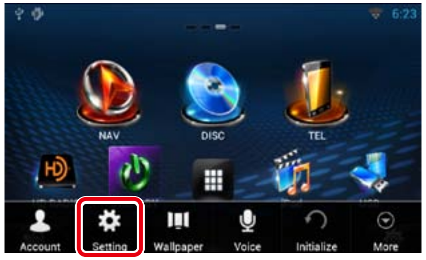
Clock and Date Setup

1 | **Press the <HOME> button to display the Home screen.**

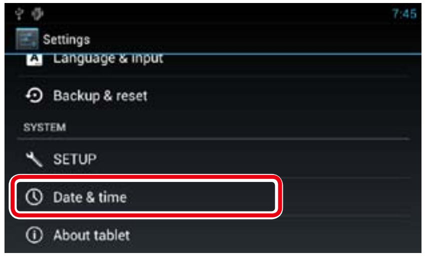
Note
- To display the Network contents panel, Press the <HOME> button again.

2 | **Press the <MENU> button.**

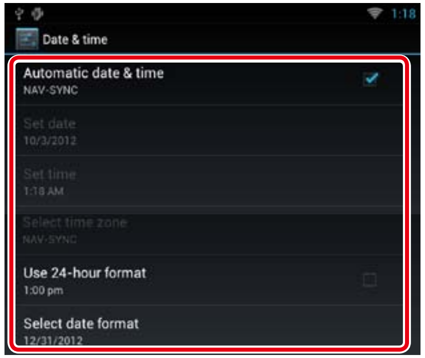
3 | **Touch [Setting].**


6:23
NAV
DISC
TEL
Account
Setting
Wallpaper
Voice
Initialize
More

4 | **Touch [Date & time].**


7:45
Settings
Language & input
Backup & reset
SYSTEM
SETUP
Date & time
About tablet

5 | **Set each item as follows.**



Date & time

Automatic date & time ☑
NAV-SYNC

Set date
10/3/2012

Set time
1:18 AM

Select time zone
NAV-SYNC

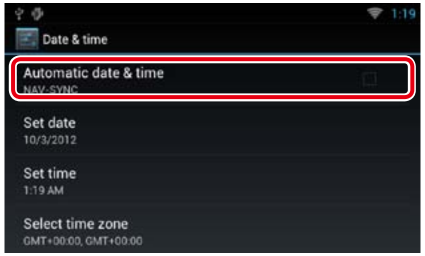
Use 24-hour format ☐
1:00 pm

Select date format
12/31/2012

6 | **Press the < ⮌ > button.**

Adjust the date and time manually.

1 | **Touch [Automatic date & time] to remove the check**



Date & time

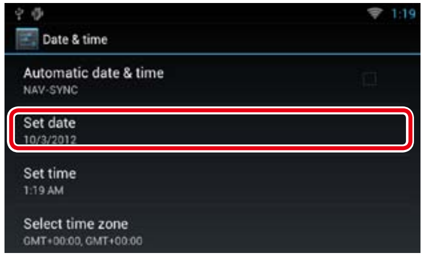
Automatic date & time ☐
NAV-SYNC

Set date
10/3/2012

Set time
1:19 AM

Select time zone
GMT+00:00, GMT+00:00

2 | **Touch [Set date]**



Date & time

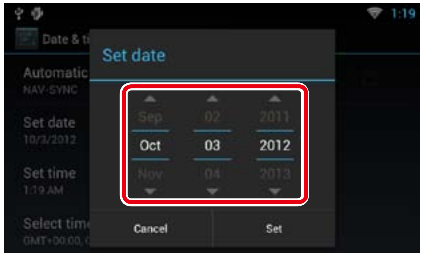
Automatic date & time ☐
NAV-SYNC

Set date
10/3/2012

Set time
1:19 AM

Select time zone
GMT+00:00, GMT+00:00

3 | **Adjust the date.**


1:19
Set date
Sep 02 2011
Oct 03 2012
Nov 04 2013
Cancel
Set

4 | **Touch [Set]**

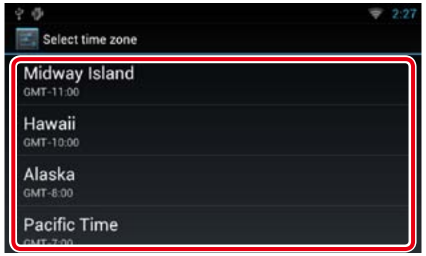
5 | **Touch [Set time]**

6 | **Adjust the time.**

7 | **Touch [Set]**

8 | **Touch [Select time zone].**

9 | **Select a time zone.**


2:27
Select time zone

Midway Island
GMT-11:00

Hawaii
GMT-10:00

Alaska
GMT-8:00

Pacific Time
GMT-7:00

10 | **Press the < ⮌ > button.**

Account Setup

About Account

To use this unit, you must register an account.

Types of accounts

You can create accounts to maintain privacy when using the mail feature or social media.

Administrator

As Administrator, you can create an owner account and perform initial setup.

You can log in to the system if you have not created an owner account.

Guest

An account for guests such as your friends.

The guest can operate this unit, but cannot use the functions related to mail, social media, and Route Collector site.

Owner

The account for the person who manages this unit.

The owner can use the functions related to mail, social media, and Route Collector site.

You can register users such as your family.

User

The account for the user of this unit.

The user can use the functions related to mail, social media, and Route Collector site.

You can register up to 4 user accounts.

Account registration procedure

1 Create an account in the Route Collector site.

Create an account refering to *Create User Account (P.36)* or the Route Collector site.

http://www.route-collector.com/

2 Register the account in this unit.

To register an Owner account, refer to *Set Owner Account (P.37)*.

To register an User account, refer to *Set User Account (P.38)*.

3 Switch between login accounts.

See *Switch the User Login (P.38)*.

Create User Account

To use this unit, you need to create an account in the Route Collector site.

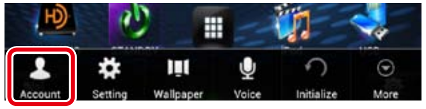
Preparation

- To register yourself in the Route Collector site as a user, you need a mail address.
- You can register yourself via the Web. *http://www.route-collector.com/*
- This step may be skipped if you have already registered yourself in the Route Collector site.

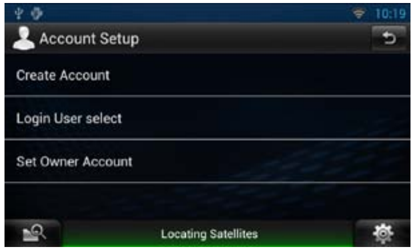
1 Press the <HOME> button to display the Home screen.

2 Press the <MENU> button.

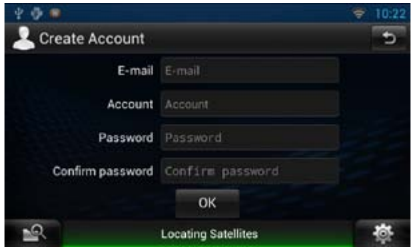
3 Touch [Account].


Account
Setting
Wallpaper
Voice
Initialize
More

4 Touch [Create Account].


10:19
Account Setup
Create Account
Login User select
Set Owner Account
Locating Satellites

5 Enter account information.


10:22
Create Account
E-mail
Account
Password
Confirm password
OK
Locating Satellites

You cannot register an account which has already been used. Register another account name.

6 Touch [OK].

The account is temporarily registered in the Route Collector site.

7 Activate the account.

A confirmation mail is sent to the registered mail address. Open the indicated URL to complete account registration.

Set Owner Account

You can register an owner account for the person who manages this system.

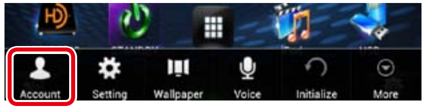
Preparation

- First create an account in the Route Collector site. See *Create User Account (P.36)*.
- If you have not created an owner account, log in to the system as Administrator.
- If you have created an owner account, log in to the system after account resetting.

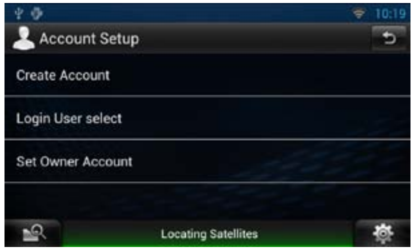
1 Press the <HOME> button to display the Home screen.

2 Press the <MENU> button.

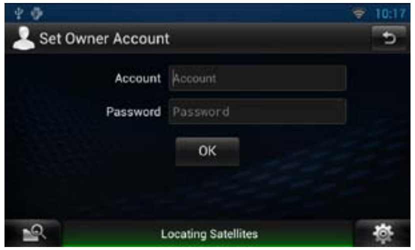
3 Touch [Account].


Account
Setting
Wallpaper
Voice
Initialize
More

4 Touch [Set Owner Account].


10:19
Account Setup
Create Account
Login User select
Set Owner Account
Locating Satellites

5 Enter account information.


10:17
Set Owner Account
Account
Password
OK
Locating Satellites

Enter the information registered in the Route Collector site.

6 Touch [OK].

Set User Account

You can register a user account for the user of this navigation system.

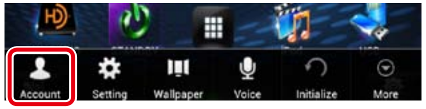
Preparation

- First create an account in the Route Collector site. See ***Create User Account (P.36)***.
- You can set a user account when you have logged in the Owner.

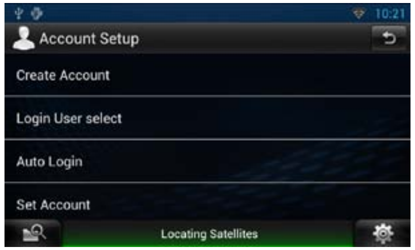
1 **Press the <HOME> button to display the Home screen.**

2 **Press the <MENU> button.**

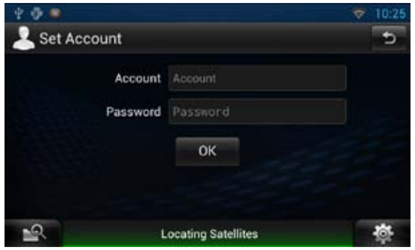
3 **Touch [Account].**


Account
Setting
Wallpaper
Voice
Initialize
More

4 **Touch [Set Account].**


10:21
Account Setup
Create Account
Login User select
Auto Login
Set Account
Locating Satellites

5 **Enter account information.**


10:25
Set Account
Account
Password
OK
Locating Satellites

Enter the information registered in the Route Collector site.

6 **Touch [OK].**

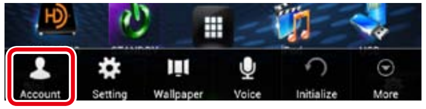
Switch the User Login

You can switch to a different account from the one currently logged in.

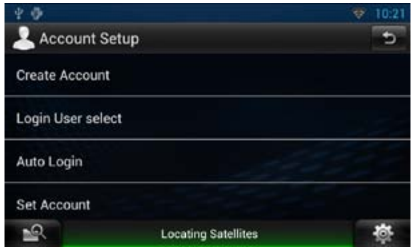
1 **Press the <HOME> button to display the Home screen.**

2 **Press the <MENU> button.**

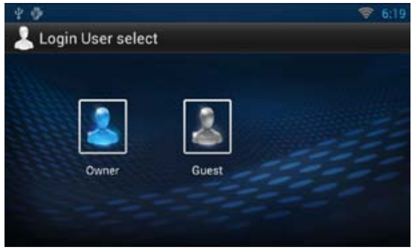
3 **Touch [Account].**


Account
Setting
Wallpaper
Voice
Initialize
More

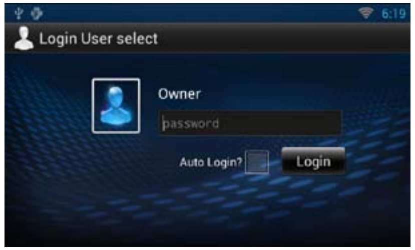
4 **Touch [Login User select].**


10:21
Account Setup
Create Account
Login User select
Auto Login
Set Account
Locating Satellites

5 **Select an account.**


6:19
Login User select
Owner
Guest

6 **Enter the password.**


6:19
Login User select
Owner
password
Auto Login?
Login

Delete User Account

You can delete a previously registered user account.

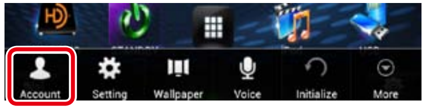
Preparation

- You can set a user account when you have logged in the Owner.

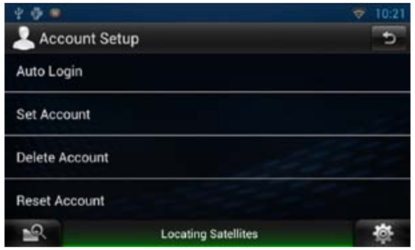
1 **Press the <HOME> button to display the Home screen.**

2 **Press the <MENU> button.**

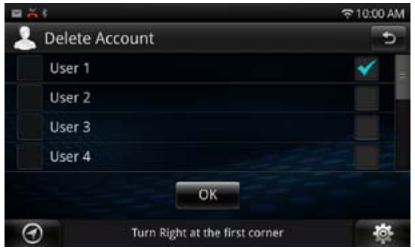
3 **Touch [Account].**


Account
Setting
Wallpaper
Voice
Initialize
More

4 **Touch [Delete Account].**


10:21
Account Setup
Auto Login
Set Account
Delete Account
Reset Account
Locating Satellites

5 **Select an account.**


10:00 AM
Delete Account
User 1
User 2
User 3
User 4
OK
Turn Right at the first corner

6 **Touch [OK].**
Confirmation screen appears.

7 **Touch [Yes].**

Reset Owner Account

You can delete previously registered owner and user accounts.

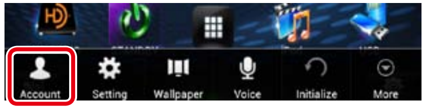
Preparation

- You can set a user account when you have logged in the Owner.

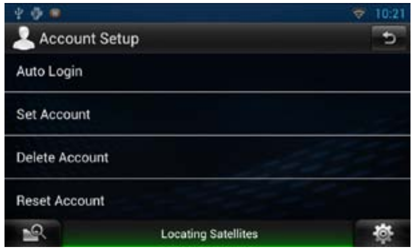
1 **Press the <HOME> button to display the Home screen.**

2 **Press the <MENU> button.**

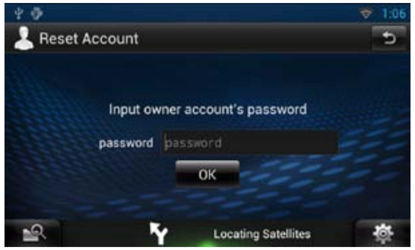
3 **Touch [Account].**


Account
Setting
Wallpaper
Voice
Initialize
More

4 **Touch [Reset Account].**


10:21
Account Setup
Auto Login
Set Account
Delete Account
Reset Account
Locating Satellites

5 **Enter the owner account's password.**


1:06
Reset Account
Input owner account's password
password
OK
Locating Satellites

6 **Touch [OK].**
Confirmation screen appears.

7 **Touch [Yes].**

Note

- The data, log, and settings used in the account are deleted.

Widget and Application Operation

Weather Widget

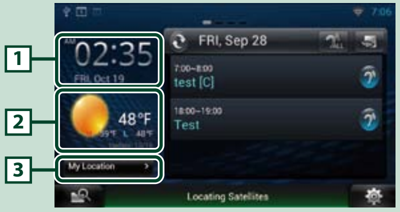
Displays the weather forecast for the selected region.

Preparation

- You must have a connection with the internet using Wi-Fi. See *Wi-Fi Setup (P.32)*.
- You can use this feature for 2 years after registration of the owner account. To use it continuously, a usage fee is required. For details, see web site of Route Collector. *http://www.route-collector.com/*

1 | Press the <HOME> button.

2 | Select the Service panel.


1
2
3
AM 02:35
FRI, Oct 19
48°F
FRI, Sep 28
7:00~8:00
test [C]
18:00~19:00
Test
My Location
Locating Satellites

1 Time & Date

Displays the current time and date.

2 Weather information

Displays the weather forecast for the selected region.

Touching this starts the weather application.

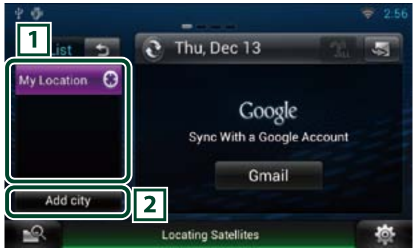
3 City information

Displays the selected region.

Touching this displays a region selection screen. See *City select (P.40)*.

City select

1 | Touch [(City name)] in the Weather Widget.


1
2
List
My Location
Add city
Thu, Dec 13
Google
Sync With a Google Account
Gmail
Locating Satellites
2:56

1 City list

Displays a region list.

Touching this displays the selected region.

2 [Add City]

Starts the weather application to add the region. See *Add a City (P.41)*.

Weather Application

Displays the weather forecast for the selected region.

Preparation

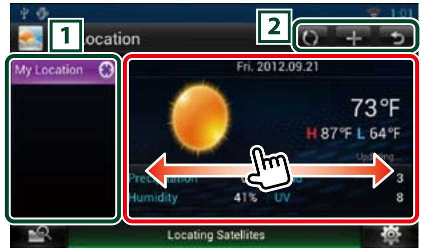
- You must have a connection with the internet using Wi-Fi. See *Wi-Fi Setup (P.32)*.
- You can use this feature for 2 years after registration of the owner account. To use it continuously, a usage fee is required. For details, see web site of Route Collector. *http://www.route-collector.com/*

1 | Press the <HOME> button.

2 | Touch [▦] in the Network contents panel.

3 | Touch [Weather].

4 | Perform desired operation as follows.


1
2
Location
My Location
Fri. 2012.09.21
73°F
H 87°F L 64°F
Updating...
Precipitation
Humidity
41%
UV
3
8
Locating Satellites
1:01

1 City list

Displays a region list.

Touching this displays the selected region.

2 Buttons

↻ : Reads information again.

✚ : Adds a region.

↩ : Terminates the application.

(Weather information)

Displays the today's weather forecast and the weather forecast for the next 6 days.

Menu

1 | Press the <MENU> button.

Delete

Deletes a region from the City list. See *Delete City (P.42)*.

Setting

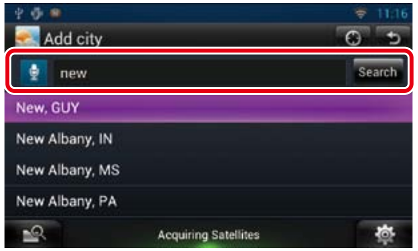
Allows you to set the information update interval, etc. See *Weather setup (P.42)*.

Add a City

Adds a region to the City list.

1 | Touch [✚].

2 | Search for a region.


Add city
new
Search
New, GUY
New Albany, IN
New Albany, MS
New Albany, PA
Acquiring Satellites
11:16

🎤 (Voice recognition)

You can enter a region using the voice recognition function. When "Speak now" is displayed, pronounce the region name.

[Search]

Search starts.

3 | Select a region.

Touching the region adds it to the list, and displays the weather forecast.

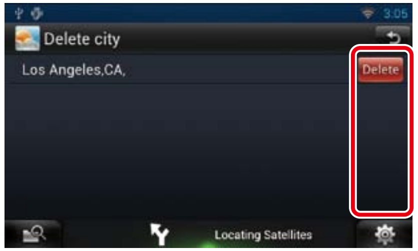
Delete City

You can delete a region from the City list.

1 | Press the <MENU> button.

2 | Touch [Delete] in the Menu.

3 | Delete the region.


3:05
Delete city
Los Angeles,CA,
Delete
Locating Satellites

4 | Touch [Yes].

5 | Touch [↩].

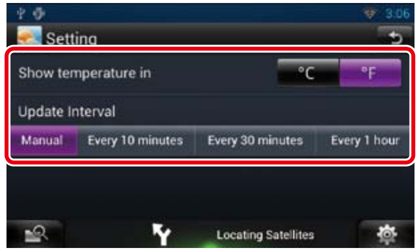
Weather setup

Performs setup when using Weather Application.

1 | Press the <MENU> button.

2 | Touch [Setting] in the Menu.

3 | Select an option as follows.


3:06
Setting
Show temperature in
°C
°F
Update Interval
Manual
Every 10 minutes
Every 30 minutes
Every 1 hour
Locating Satellites

Show temperature

Select a temperature scale.

Update interval

Set an information update interval.

4 | Touch [↩].

Today Widget

You can display the today's schedule registered in Google Calendar.

Preparation

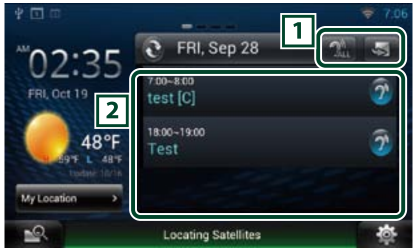
- To use this service, a Google account is required.
- You can use a user account when you have logged in the Owner or User.

1 | Press the <HOME> button.

2 | Select the Service panel.

3 | Touch [↻].

4 | Select the Today Widget.


7:06
AM
02:35
FRI, Oct 19
48°F
My Location
FRI, Sep 28
7:00~8:00
test [C]
18:00~19:00
Test
Locating Satellites
1
2

1 Buttons

↪ : Starts the schedule application.

▣ : Reads out all schedules in an auditory fashion.

↻ : Switches to RSS or SNS.

2 Schedule list

Displays the today's schedule registered in Google Calendar.

Touching it displays the event view.

▣ : Reads out the schedule in an auditory fashion.

SNS Widget

You can use Facebook, Twitter, Gmail, and email (IMAP).

Preparation

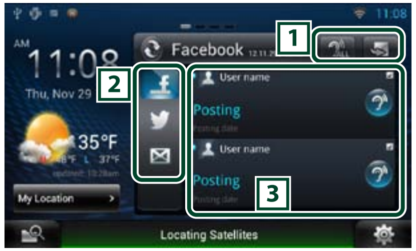
- To use each service, the email, Google, Facebook or Twitter account is required.
- You can use a user account when you have logged in the Owner or User.

1 | Press the <HOME> button.

2 | Select the Service panel.

3 | Touch [↻].

4 | Select the SNS Widget.


11:08
AM
11:08
Thu, Nov 29
35°F
My Location
Facebook
User name
Posting
User name
Posting
Locating Satellites
1
2
3

1 Buttons

↪ : Starts the SNS application.

▣ : Reads out all contents in an auditory fashion.

↻ : Switches to the schedule or RSS.

2 Category

Select a service category.

3 SNS article list

Displays the contents selected in Category in a new order.

Touching this starts the SNS application and displays its contents.

When the latest information is displayed at the top, sliding the list allows you to update the information.

▣ : Reads out the SNS contents in an auditory fashion.

RSS Widget

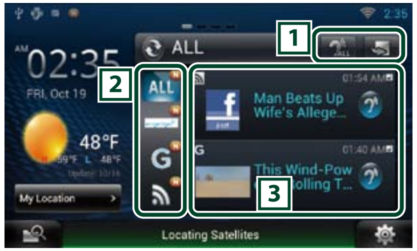
Displays the RSS news.

1 **Press the <HOME> button.**

2 **Select the Service panel.**

3 **Touch [ ].**

4 **Select the RSS Widget.**



1 Buttons

: Starts the RSS application.

: Reads out all the contents in an auditory fashion.

: Switches to the schedule or SNS.

2 Category

Select a service category.

3 RSS article list

Displays the contents selected in Category in a new order.

Touching this starts the RSS application and displays its contents.

When the latest information is displayed at the top, sliding the list allows you to update the information.

: Reads out the RSS contents in an auditory fashion.

Schedule Application

You can edit schedules on the internet.
In addition, you can also synchronize the schedule with Google Calendar.

Preparation

- You must have a connection with the internet using Wi-Fi. See *Wi-Fi Setup (P.32)*.
- To use Google Calendar, a Google account is required.
- You can use a user account when you have logged in the Owner or User.

Register an account

Register account information for synchronization with the Google account.

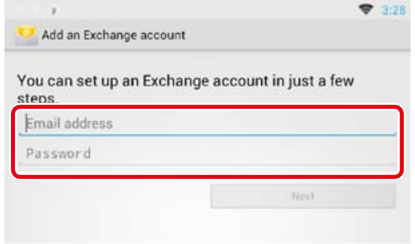
1 **Press the <HOME> button.**

2 **Touch [⊞] in the Network contents panel.**

3 **Touch [25 Schedule].**

4 **Touch [Gmail].**

5 **Input the Email address and Password.**



3:28

Add an Exchange account

You can set up an Exchange account in just a few steps.

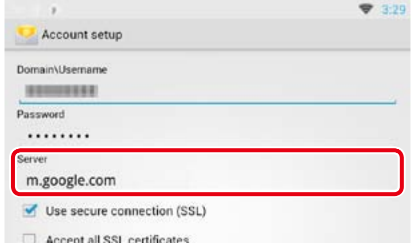
Email address

Password

Next

6 **Touch [Next].**

7 **Change the server name to "m.google.com".**



3:29

Account setup

Domain\Username

[redacted]

Password

••••••••

Server

m.google.com

☑ Use secure connection (SSL)

☐ Accept all SSL certificates

8 **Touch [Next] thrice.**

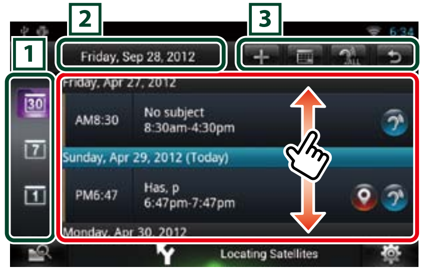
Schedule Operation

1 **Press the <HOME> button.**

2 **Touch [⊞] in the Network contents panel.**

3 **Touch [25 Schedule].**

4 **Perform desired operation as follows.**



1 View category

30 : Displays agendas.

7 : Displays the weekly schedule.

1 : Displays the daily schedule.

2 Date information

Displays the date of the displayed schedule.

Touching this displays the date of the schedule to be displayed.

3 Buttons

+ : Add a schedule.

: Displays the today's schedule.

: Reads out all schedules by voice.

: Terminates the application.

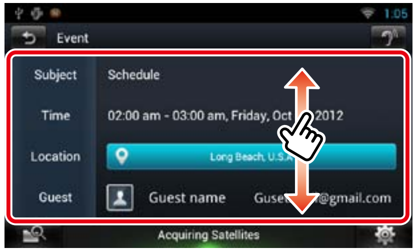
(Schedule list)

Displays a schedule.

Touching this displays details of the schedule.

: Reads out the content of the schedule in an auditory fashion.

5 **Detailed schedule view.**



1:05

Event

Subject: Schedule

Time: 02:00 am - 03:00 am, Friday, Oct 2012

Location: Long Beach, U.S.A

Guest: Guest name Guse @gmail.com

Acquiring Satellites

(Text-to-speech)

Reads out the content of the schedule by voice.

Menu

1 **Press the <MENU> button.**

Agenda view/ Week view/ Day view

Sign out

Logs out from the current account.

Event view

Edit event

Edit schedule.

Delete event

Deletes schedule.

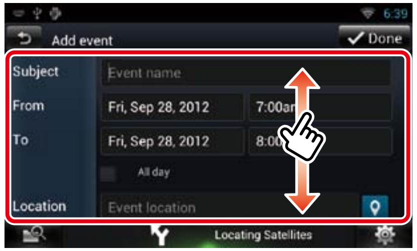
When a confirmation screen appears, touch "Yes".

Add event

Adds an event to the schedule.

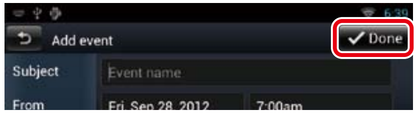
1 Touch [+] in the Schedule application.

2 Enter your schedule.


Add event
Done
Subject
Event name
From
Fri, Sep 28, 2012
7:00am
To
Fri, Sep 28, 2012
8:00
All day
Location
Event location
Locating Satellites

Enter an event name, date and time, description, etc.

3 Add an event.


Add event
Done
Subject
Event name
From
Fri, Sep 28, 2012
7:00am

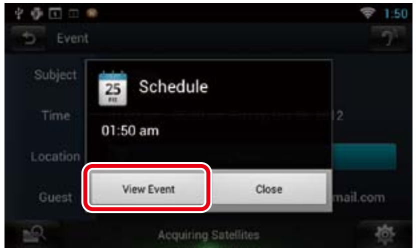
Synchronizes the schedule with Google Calendar if used.

Notification

Displays a notification icon in the message window and status bar when the set time is reached.

Message window

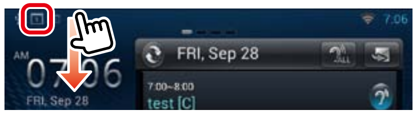
1 Touch [View Event] to display event details.


Event
Subject
Schedule
Time
01:50 am
Location
Guest
View Event
Close
Acquiring Satellites

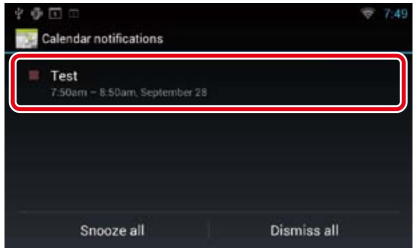
The Schedule application starts to display details.

Status bar

1 Drag the status bar downward.


7:06
FRI, Sep 28
AM
FRI, Sep 28
7:00~8:00
test [C]

2 Touch [▣] to display details.


7:49
Calendar notifications
Test
7:50am – 8:50am, September 28
Snooze all
Dismiss all

The Schedule application starts to display details.

SNS Application

Displays the screen for using Facebook, Twitter, and Gmail.

Preparation

- You must have a connection with the internet using Wi-Fi. See *Wi-Fi Setup (P.32)*.
- To use a Google, Facebook or Twitter service, the corresponding account is required.
- You can use a user account when you have logged in the Owner or User.

Start the SNS Application

1 Press the <HOME> button.

2 Touch [▦] in the Network contents panel.

3 Touch [SNS].

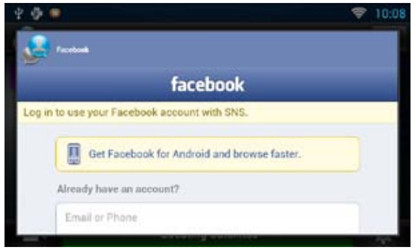
Register an account

Facebook

1 Touch [(Facebook)].

2 Touch [Sign in].

3 Input the Email address/Phone and Password.


10:08
Facebook
facebook
Log in to use your Facebook account with SNS.
Get Facebook for Android and browse faster.
Already have an account?
Email or Phone

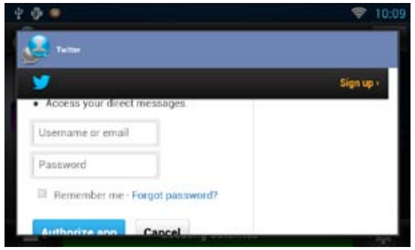
4 Touch [Log in].

Twitter

1 Touch [(Twitter)].

2 Touch [Sign in].

3 Input the Username/email and Password.


10:09
Twitter
Sign up ›
Access your direct messages.
Username or email
Password
Remember me · Forgot password?
Authorize app
Cancel

4 Touch [Authorize app].

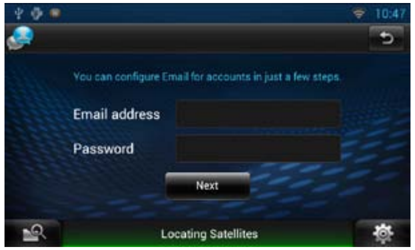
Gmail

1 Touch [(mail)].

2 Touch [Sign in].

3 Touch [Gmail].

4 Input the Email and Password.


10:47
You can configure Email for accounts in just a few steps.
Email address
Password
Next
Locating Satellites

5 Touch [Next].

NOTE

- You can register Email (IMAP). Select [Other] in step 3, and enter necessary data according to the displayed messages.

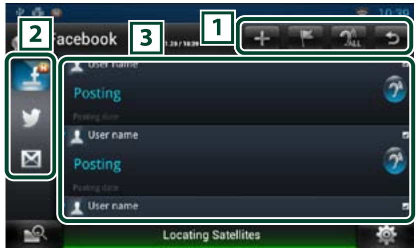
SNS Operation

1 Press the <HOME> button.

2 Touch [▦] in the Network contents panel.

3 Touch [SNS].

4 Perform desired operation as follows.


1
2
3
acebook
User name
Posting
User name
Posting
User name
Locating Satellites

1 Buttons

+: Create a new article.

⚑: Posting the current place.

🔊: Reads out all articles by voice.

↩: Terminates the application.

2 Category

Select a category to display.

3 Article list

Displays an article or message.

Touching this displays details.

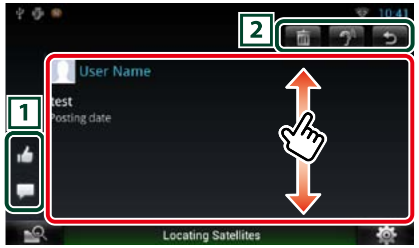
While the latest information is displayed at the top, sliding the list down updates the information.

🔊: Reads out the article by voice.

Continued

5 | Detailed article or message view.

Facebook


1
2
User Name
test
Posting date
Locating Satellites

1 Buttons

👍 : Votes as "Like".

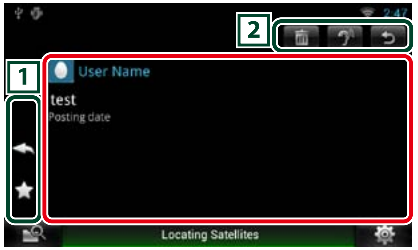
▬ : Posts a comment.

2 Buttons

🗑 : Deletes an article. When the confirmation screen appears, touch "Ok".

🔊 : Reads the content of the comment by voice.

Twitter


1
2
User Name
test
Posting date
Locating Satellites

1 Buttons

← : Create a reply.

⟲ : Create a ReTweet.

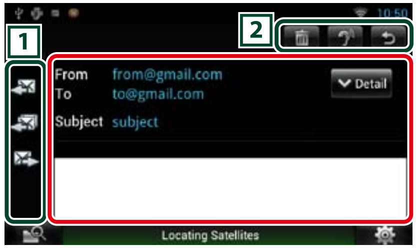
★ : Adds to Favorites.

2 Buttons

🗑 : Delete the Tweet.

🔊 : Reads the content of the comment by voice.

Gmail


1
2
From from@gmail.com
To to@gmail.com
Subject subject
Detail
Locating Satellites

1 Buttons

✉ : Creates a reply mail.

✉ : Creates a reply mail for all.

✉ : Creates a forwarded mail.

2 Buttons

🗑 : Deletes an article. When the confirmation screen appears, touch "Ok".

🔊 : Reads the content of the comment by voice.

Menu

1 | Press the <MENU> button.

Article list view

Setting

Set an update interval.

Sign out (Facebook, Twitter)

Logs out from the current account.

Account (Gmail)

Select the account and label to be displayed.

① Select an account.

② Select a label.

Add account (Gmail)

Register a new account.

Delete account (Gmail)

Delete a registered account.

Select the account to delete by putting a checkmark, and then touch [OK].

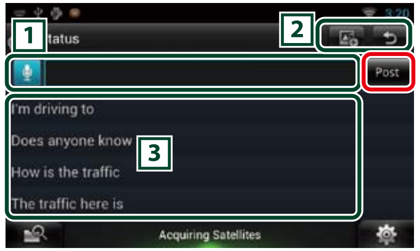
Add to post

Create an article to be posted to the SNS service of the selected category.

1 | Touch [➕] in the SNS application.

2 | Create an article to post.

Facebook


1
2
3
tatus
Post
I'm driving to
Does anyone know
How is the traffic
The traffic here is
Acquiring Satellites

1

Enter an article to post.

🎤 : Enter a comment using the voice recognition function. When "Speak now" appears, speak the comment.

[Post] : Posts the article.

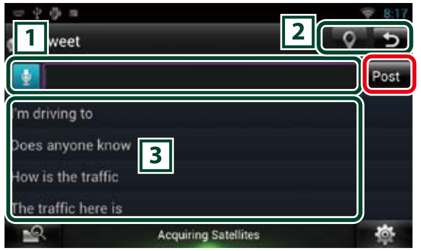
2 Buttons

🖼 : Post photo.

3

Select a fixed phrase.

Twitter


1
2
3
weet
Post
I'm driving to
Does anyone know
How is the traffic
The traffic here is
Acquiring Satellites

1

Enter an article to post.

🎤 : Enter a comment using the voice recognition function. When "Speak now" appears, speak the comment.

[Post] : Posts the article.

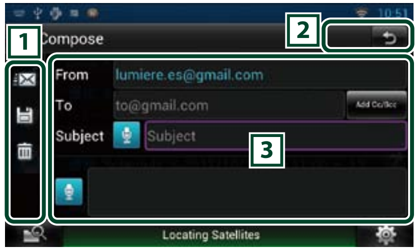
2 Buttons

📍 : Post current location.

3

Select a fixed phrase.

Gmail


1
2
3
Compose
From lumiere.es@gmail.com
To to@gmail.com
Add Cc/Bcc
Subject Subject
Locating Satellites

1 Buttons

✉ : Sends the mail.

💾 : Stores the mail temporarily.

🗑 : Deletes the mail.

3

Create a mail message to send.

🎤 : Enter a comment using the voice recognition function. When "Speak now" appears, speak the comment.

[Add Cc/Bcc] : Displays cc and Bcc.

RSS Application

Displays an RSS feed.

Preparation

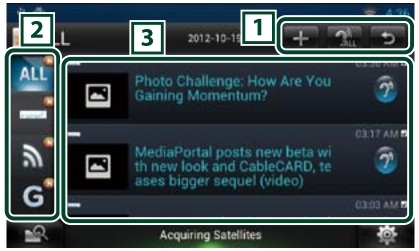
- You must have a connection with the internet using Wi-Fi. See *Wi-Fi Setup (P.32)*.
- You can use a user account when you have logged in the Owner or User.

1 | **Press the <HOME> button.**

2 | **Touch [▦] in the Network contents panel.**

3 | **Touch [(RSS)].**

4 | **Perform desired operation as follows.**


2
3
1
ALL
2012-10-19
Photo Challenge: How Are You Gaining Momentum?
03:17 AM
MediaPortal posts new beta with new look and CableCARD, teases bigger sequel (video)
03:03 AM
Acquiring Satellites

1 Buttons

+ : Adds an RSS feed. See *Add RSS feed (P.51)*

🔊 : Reads out all articles by voice.

↩ : Terminates the application.

2 Category

Select the RSS feed to be displayed.

3 Article list

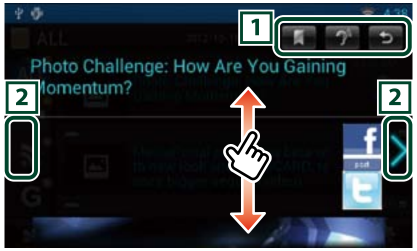
Display the article.

Touching this displays details.

While the latest information is displayed at the top, sliding the list down updates the information.

🔊 : Reads out the article by voice.

5 | **Detailed article view.**


1
2
2
ALL
Photo Challenge: How Are You Gaining Momentum?

1 Buttons

🔖 : Registers the RSS feed in the bookmark. Deletes the RSS feed if it has already been registered.

🔊 : Reads the content by voice.

2

Moves to the previous or next article.

Menu

1 | **Press the <MENU> button.**

Article list view

Delete

Delete an RSS feed. See *Delete RSS feed (P.51)*

Setting

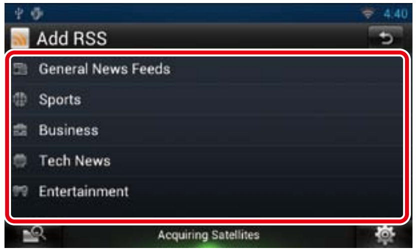
Set the update interval. See *RSS setup (P.51)*

Add RSS feed

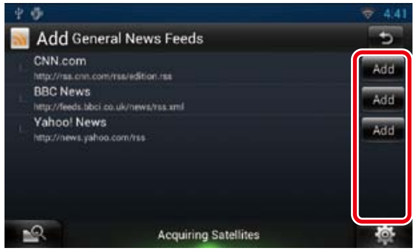
Add an RSS feed.

1 | **Touch [+] in the RSS application.**

2 | **Select a category.**


4:40
Add RSS
General News Feeds
Sports
Business
Tech News
Entertainment
Acquiring Satellites

3 | **Touch [Add].**


4:41
Add General News Feeds
CNN.com
http://rss.cnn.com/rss/edition.rss
BBC News
http://feeds.bbci.co.uk/news/rss.xml
Yahoo! News
http://news.yahoo.com/rss
Add
Add
Add
Acquiring Satellites

Note

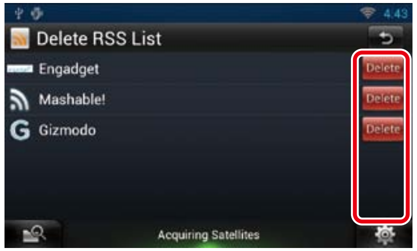
- In order to add an selectable RSS feed, you need to edit it in the Route Collector site. See *www.route-collector.com/*

Delete RSS feed

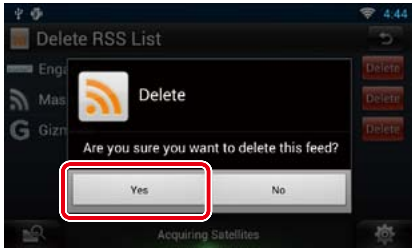
Delete an RSS feed.

1 | **Press the <MENU> button.**

2 | **Touch [Delete].**


4:43
Delete RSS List
Engadget
Mashable!
Gizmodo
Delete
Delete
Delete
Acquiring Satellites

3 | **Touch [Yes] to confirm.**


4:44
Delete RSS List
Delete
Yes
No
Acquiring Satellites

Are you sure you want to delete this feed?

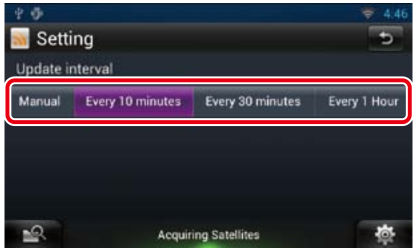
RSS setup

Performs setup when using RSS Application.

1 | **Press the <MENU> button.**

2 | **Touch [Setting] in the Menu.**

3 | **Select an option as follows.**


4:46
Setting
Update interval
Manual
Every 10 minutes
Every 30 minutes
Every 1 Hour
Acquiring Satellites

Update interval

Set the information update interval.

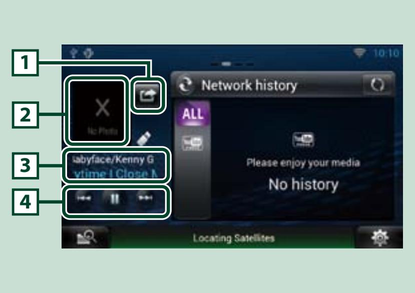
Now playing Widget

Displays the information about the song or station you are listening to, and allows you to perform simple operations.

1 | Press the <HOME> button.

2 | Select the Media panel.

Media source such as CD or USB


1
2
3
4
Network history
ALL
Please enjoy your media
No history
No Photo
labyface/Kenny G
ytime I Close N
Locating Satellites
10:10

1 (I'm listening)

You can post the information about the song you are listening to, on twitter, Facebook. See *Posting the information about the song you are listening to (P.53)*.

2 Album art

Touching Album art displays the Source control screen.

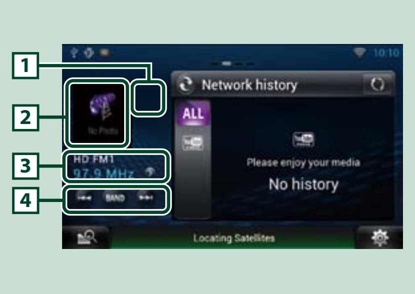
3 Information display

Displays the information (title, etc.) about the song being played.

4 Buttons

Allow you to stop playback temporarily and select songs.

Radio source such as HD Radio Technology or SiriusXM


1
2
3
4
Network history
ALL
Please enjoy your media
No history
No Photo
HD FM1
97.9 MHz
BAND
Locating Satellites
10:10

1 (I'm listening)

You can post the information about the song you are listening to, on twitter, Facebook. See *Posting the information about the song you are listening to (P.53)*.

2 Artwork

Touching artwork displays the Source control screen.

3 Information display

Displays the band, frequency, etc.

Touching this displays the Preset list screen. See *Preset select (P.53)*.

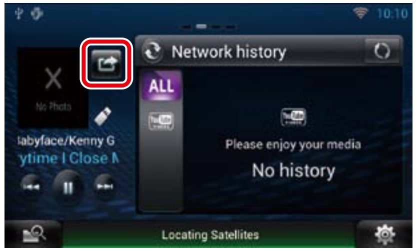
4 Buttons

Allows you to select a band and a station.

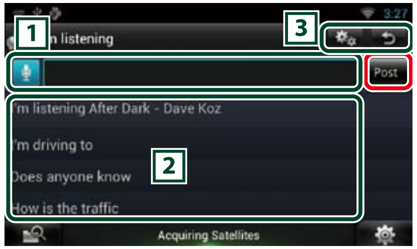
Posting the information about the song you are listening to

You can post the information about the song you are listening to, on Twitter, Facebook, or Route Collector site.

1 | Touch [ ].


Network history
ALL
Please enjoy your media
No history
No Photo
labyface/Kenny G
ytime I Close N
Locating Satellites
10:10

2 | Create the information you want to post.


1
2
3
n listening
Post
3:27
'm listening After Dark - Dave Koz
'm driving to
Does anyone know
How is the traffic
Acquiring Satellites

1

Enter the information you want to post.

🎤 : Enter a comment using the voice recognition function. When "Speak now" is displayed, pronounce the comment.

[Post] : Posts the information.

2 Fixed phrase

Select the information about the song you are listening to and a fixed phrase.

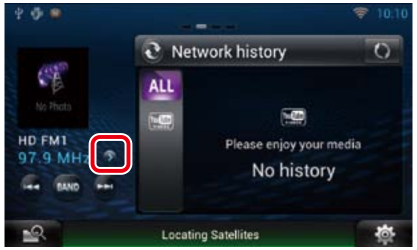
3

Select the service on which you want to post the information.

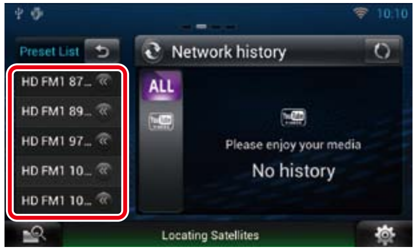
Select the service, and then touch [OK].

Preset select

1 | Touch illustrated area.


Network history
ALL
Please enjoy your media
No history
No Photo
HD FM1
97.9 MHz
BAND
Locating Satellites
10:10

2 | Select a station or channel from the list.


Preset List
HD FM1 87...
HD FM1 89...
HD FM1 97...
HD FM1 10...
HD FM1 10...
Network history
ALL
Please enjoy your media
No history
Locating Satellites
10:10

Network Media History Widget

You can select a song from the history of the songs played on YouTube, and listen to it again.

Preparation

- You must have a connection with the internet using Wi-Fi. See *Wi-Fi Setup (P.32)*.
- You can use a user account when you have logged in the Owner or User.
- When the Trip log function is turned on, information about the played content is displayed.

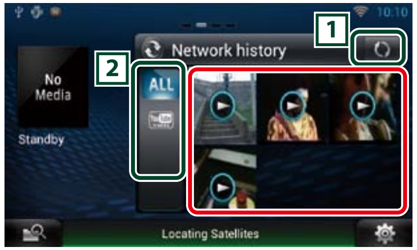
1 | Press the <HOME> button.

2 | Select the Media panel.

3 | Touch [⟳].

4 | Select the Network media history Widget.

5 | Touch desired item.



1 Buttons

Update the history information.

⟳ : Switches to Photo frame.

2 Category

Select the service category.

6 | Again, touch desired item.

Playback starts.

Photo Frame Widget

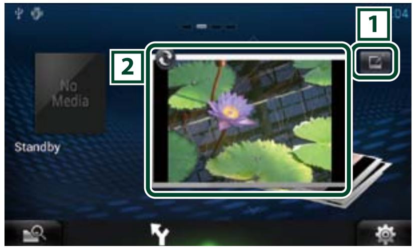
You can display the photos stored in the USB memory or SD card as a slide show.

1 | Press the <HOME> button.

2 | Select the Media panel.

3 | Touch [⟳].

4 | Select the Photo Frame Widget.



1 Edit

Edit the photo to be displayed.

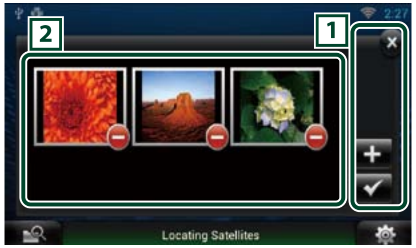
2 Picture

Sliding the photo vertically scrolls through photos.

⟳ : Switches to Network media history.

Select the photo you want to display.

1 | Touch [✎].



1 Buttons

⊞ : Displays the screen for selecting the photo to be added.

☑ : Ends editing, and returns to the Photo frame screen.

☒ : Ends editing, and returns to the Photo frame screen

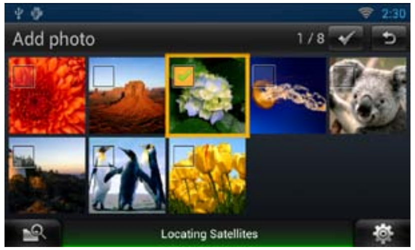
2 Thumbnail

Touch and hold the photo. When the photo shaking, drag the photo to change the order.

⊖ : Deletes the photo from the list.

2 | Touch [⊞].

3 | Select a picture.



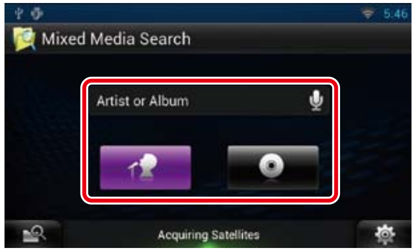
4 | Touch [☑].

Mixed Media Search

You can search for a song in USB, SD, iPod, Kenwood Wireless Link, and Cloud Storage by entering an artist name or album name, and play the song irrespective of the media type.

1 | Touch [ ].

2 | Input the Artist or Album.


5:46
Mixed Media Search
Artist or Album
Acquiring Satellites

[🎤]

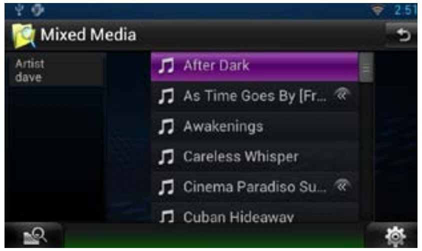
Enter the keyword using the voice recognition function. When "Speak now" is displayed, pronounce the keyword.

* You can use a user account when you have logged in the Owner or User.

Category

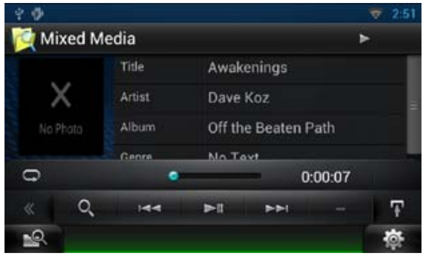
Determine whether to search for the song by artist name or album name.

3 | Select a song from the list.


2:51
Mixed Media
Artist
dave
After Dark
As Time Goes By [Fr...
Awakenings
Careless Whisper
Cinema Paradiso Su...
Cuban Hideaway

Playback starts.

Plays screen


2:51
Mixed Media
No Photo
0:00:07

Title Awakenings
Artist Dave Koz
Album Off the Beaten Path
Genre No Text

[▶II]

Plays or pauses.

[I◀◀] [▶▶I]

Searches the previous/next file.

[🔍]

Searches file.

[🔁]

Repeats the current file. Each time you touch the key, repeat mode switches on or off.

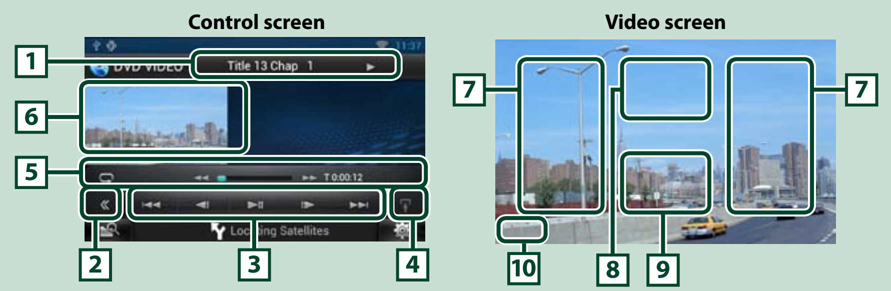
DVD/Video CD (VCD) Operation

DVD/VCD Basic Operation

Most functions can be controlled from the source control screen and playback screen.

NOTE

- Set the remote controller mode switch to DVD mode before starting operation, see ***Switching the operation mode (P.151)***.
- The screen shot below is for DVD. It may be different from the one for VCD.



1 Information display

Displays the following information.

- **Title #, Chap #**: DVD title and chapter number display
- **Track #/Scene #**: VCD track or scene number display
  *Scene # is displayed only when PBC is on.
- **►, ►►, ►►I, ■, etc.**: Current play mode display
  The meanings of each icon are as follows; ► (play), ►► (fast forward), ◄◄ (fast backward), ►►I (search up), I◄◄ (search down), ■ (stop), ■R (resume stop), II (pause), I► (slow playback), ◄I (slow reverse playback).

Touch this area to display the disc lable name.

2 Multi function key

Touch to switch the multi function menu. For details on the menu, see ***Multi function menu (P.60)***.

3 Multi function menu

Various functions can be operated using keys in this menu. For details on the keys, see ***Multi function menu (P.60)***.

4 Control switching key

Unavailable in DVD/VCD source.

5 Sub function menu

The following functions can be performed by using keys in this area.

- **Repeats the current content**: Touch [🔁]. Each time you touch the key, repeat mode switches in the following sequence;
  DVD: "title repeat" 🔁, "chapter repeat" 🔁, "function off"
  VCD (PBC On): Does not repeat
  VCD (PBC Off): "track repeat" 🔁, "function off"
- **Fast forward or fast backward**: Touch [◄◄] or [►►]. Each time you touch the key, the speed changes; standard, 2 times, 3 times.
- **For confirmation of play time**: See #:##:##.
  DVD: You can switch the time display between title play time, chapter play time, and title remaining time. Each time you touch, the display switches between "T #:##:##" (title play time display), "C #:##:##" (chapter play time display), and "R #:##:##" (title remaining time display).
  As well as the time display, the bar indicating current location appears.
  VCD (PBC off): You can also confirm disc remaining time by touching time display. Each time you touch, the display switches between "P ##:##" (play time display) and "R ##:##" (disc remaining time).
- **For confirmation of current playing position**:
  See the bar in center (DVD only). The bar does not appear while the remaining time is being displayed.

6 Movie display area

Touch to display Video screen.

7 Searching area

Touch to search the next/previous content.

Scrolling from center of display to left or right performs fast backward or fast forward. Each time you touch each area, the speed changes; standard, 2 times, 3 times. To stop fast backward/forward, touch center of the display.

8 Menu display area

This area functions differently depending on the current status.

- **During DVD playback**: Displays the Movie control screen. During the menu display, displays the highlight control screen.
- **During VCD playback**: Displays the Movie control screen. See ***Zoom Control for DVD and VCD (P.62)***.

9 Key display area

Touch to display the last control screen.

10 Screen setup display area

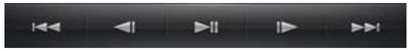
Touch and hold to display the screen control screen. See ***Monitor Screen Setup (P.128)***.

NOTE

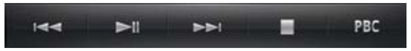
- If you use a remote controller, you can jump directly to the desired video scene by entering the chapter number, scene number, play time, etc ***Direct search mode (P.151)***.

Multi function menu

DVD



VCD



The functions of each key are as follows.

[I◄◄] [►►I]

Searches the previous/next content.

[►II]

Plays or pauses.

[◄I] or [I►] (DVD only)

Plays in slow motion forward or backward.

[■]

Stops playback. When touched twice, the disc is played from the beginning when you play it the next time.

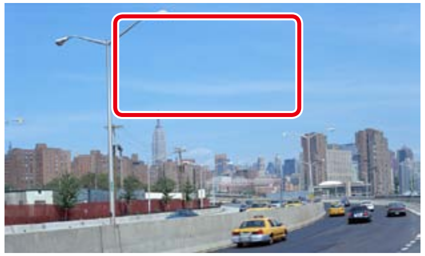
[PBC] (VCD only)

Turn PBC on or off.

DVD Disc Menu Operation

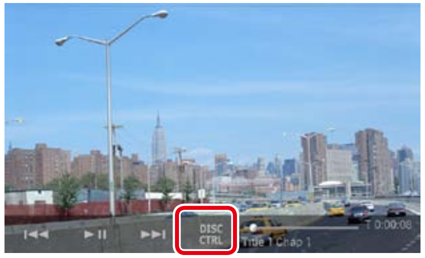
You can set up some items in the DVD-VIDEO disc menu.

1 Touch illustrated area during playback.



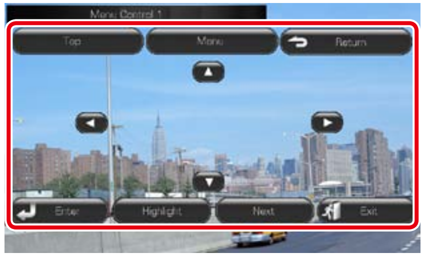
Movie control screen appears.

2 Touch [Disc CTRL].



Menu Control screen appears.

3 Perform desired operation as follows.



Displays the top menu

Touch [Top].*

Displays the menu

Touch [Menu].*

Displays the previous menu

Touch [Return].*

Enters selected item

Touch [Enter].

Enables direct operation

Touch [Highlight] to enter the highlight control mode. See *Highlight control (P.61)*.

Moves the cursor

Touch [▲], [▼], [◄], [►].

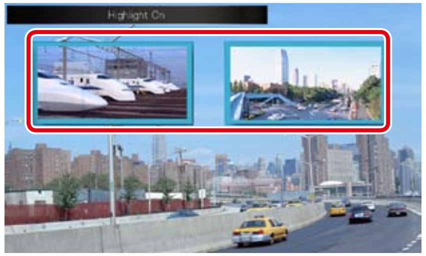
*** These keys may not function depending on the disc.**

Highlight control

Highlight control lets you control the DVD menu by touching the menu key directly on the screen.

1 Touch [Highlight] in the Menu Control screen.

2 Touch desired item on the screen.



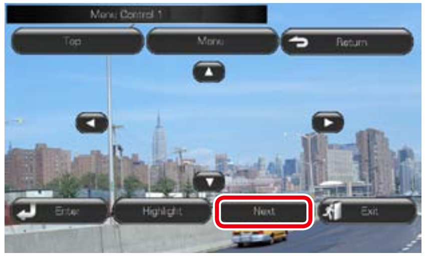
NOTE

- The highlight control is cleared automatically if you do not operate for a constant time.

DVD Play Mode Setting

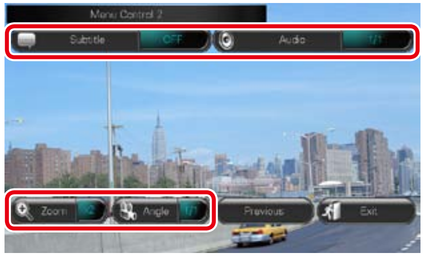
You can select DVD play mode.

1 Touch [Next] in the Menu Control screen.


Menu Control 1
Top
Menu
Return
Enter
Highlight
Next
Exit

Menu Control 2 screen appears.

2 Touch the key which corresponds to desired setting item.


Menu Control 2
Subtitle
OFF
Audio
1/1
Zoom
Angle
1/1
Previous
Exit

Switches the subtitle language

Touch [Subtitle]. Each time you touch this key, language is switched.

Switches the audio language

Touch [Audio]. Each time you touch this key, language is switched.

Controls zoom ratio

Touch [Zoom]. For details, see *step2 in Zoom Control for DVD and VCD (P.62)*.

Switches the picture angle

Touch [Angle]. Each time you touch this key, picture angle is switched.

Exits menu control

Touch [Exit].

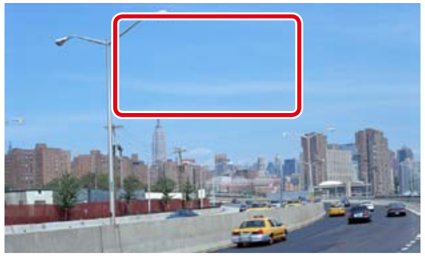
Displays the Menu Control 1 screen

Touch [Previous].

Zoom Control for DVD and VCD

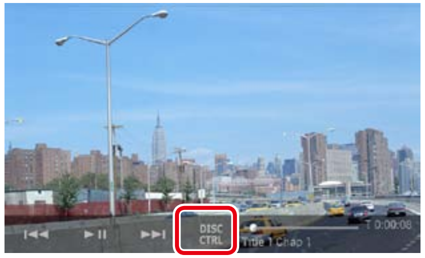
You can enlarge Playback screen for DVD and VCD.

1 For VCD, touch illustrated area during playback.



Movie control screen appears.

2 Touch [Disc CTRL].

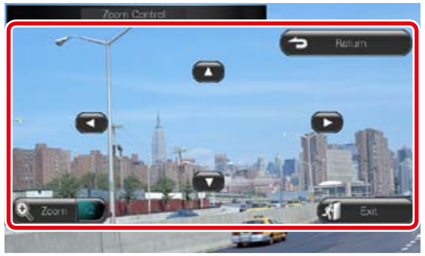

DISC CTRL
Title 1 Chap 1
T 0:00:08

Zoom Control screen appears.

NOTE

- For DVD, please refer to *DVD Play Mode Setting (P.62)* to display the Zoom Control screen.

3 Perform desired operation as follows.


Zoom Control
Return
Zoom
Exit

Switches zoom ratio

Touch [Zoom].

For DVD, changes the zoom ratio at 4 levels; Off, 2 times, 3 times, 4 times.

For VCD, changes the zoom ratio at 2 levels; Off, 2 times.

Scrolls the screen

Touch [▲], [▼], [◄], or [►] to scroll the screen in the direction you touch.

Exits menu control

Touch [Exit].

Displays the previous menu*

Touch [Return].

*** This function may not be performed depending on the disc.**

NOTE

- You cannot touch the menu keys directly on the screen when zooming.

DVD Setup

You can set up the DVD playback functions.

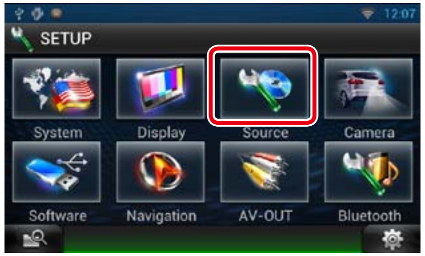
1 Touch [⚙].

Quick menu appears.

2 Touch [SETUP].

SETUP Menu screen appears.

3 Touch [Source].

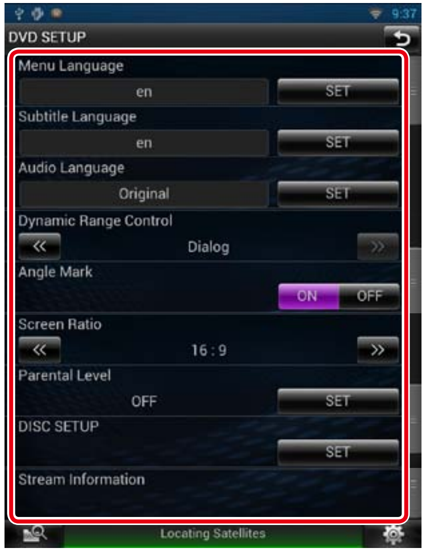

12:07
SETUP
System
Display
Source
Camera
Software
Navigation
AV-OUT
Bluetooth

Source SETUP Menu screen appears.

4 Touch [DVD SETUP] in the list.

DVD SETUP screen appears.

5 Set each item as follows.


9:37
DVD SETUP
SET
Locating Satellites

Menu Language: en
Subtitle Language: en
Audio Language: Original
Dynamic Range Control: Dialog
Angle Mark: ON OFF
Screen Ratio: 16 : 9
Parental Level: OFF
DISC SETUP
Stream Information

Menu/Subtitle/Audio Language*

See *Language setup (P.64)*.

Dynamic Range Control*

Set the dynamic range.

Wide: The dynamic range is wide.

Normal: The dynamic range is normal.

Dialog (Default): Makes the total sound volume larger than other modes. This is effective only when you are using Dolby Digital software.

Angle Mark

Set an angle mark display.

ON (Default): An angle mark appears.

OFF: An angle mark does not appear.

Screen Ratio*

Set the screen display mode.

16:9 (Default): Displays wide pictures.

4:3 LB: Displays wide pictures in the Letter Box format (having black stripes at the top and bottom of screen).

4:3 PS: Displays wide pictures in the Pan & Scan format (showing pictures cut at the right and left ends).

Continued

Parental Level*

See *Parental level (P.65)*.

DISC SETUP

See *Disc setup (P.65)*.

Stream Information

Displays the present source information.

The stream (Dolby Digital, dts, Linear PCM, MPEG, WMA or AAC) appears.

*** These items are disabled when a DVD is being played.**

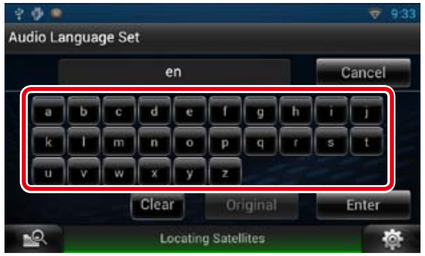
Language setup

This setting is for the language used in the menu, subtitle, and voice. You cannot setup these items during DVD playback.

1 Touch [SET] of the desired item; [Menu Language], [Subtitle Language], [Audio Language].

Language Set screen appears.

2 Enter the desired language code and touch [Enter].



Sets the entered language and returns to the DVD SETUP screen.

See *DVD Language Codes (P.164)*.

NOTE

- To cancel the setup and return to the previous screen, touch [Cancel].
- To clear the entered code, touch [Clear].
- To set the DVD's original language for audio language, touch [Original].

Parental level

Set a parental lock level to prohibit children to watch video. You cannot set a parental lock level during DVD playback.

1 Touch [SET] of [Parental Level].

Parental Pass screen appears.

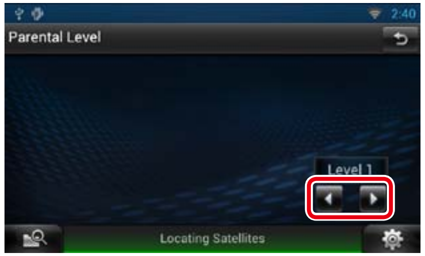
2 Enter the parental code and touch [Enter].

Parental Level screen appears.

NOTE

- To cancel the setup and return to the previous screen, touch [Cancel].
- To clear the entered code, touch [Clear].
- Current parental lock level appears as [Level#].

3 Touch [◄] or [►] to select a parental lock level.



NOTE

- If a disc has higher parental lock level, you need to enter the code number.
- The parental lock level varies depending on a loaded disc.
- If a disc has no parental lock, anybody can play it even though you have set the parental lock.

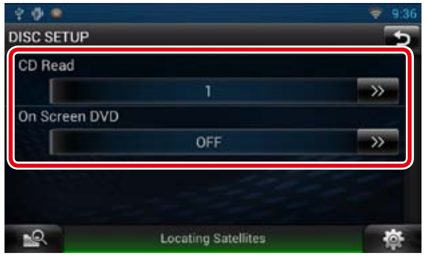
Disc setup

Performs setup when using disc media.

1 Touch [SET] of [DISC SETUP].

DISC SETUP screen appears.

2 Select an option as follows.



CD Read

Set how this navigation system plays a music CD.

1 (Default): Automatically recognizes and plays an audio file disc, a DVD or a music CD.

2: Forcibly plays a disc as a music CD. Select [2] if you wish to play a music CD having a special format or if you cannot play a disc with the option [1] set..

On Screen DVD

Set how this navigation system displays information on-screen.

Auto: When updated, information appears for 5 seconds.

OFF (Default): Information does not appear.

NOTE

- [CD Read] is disabled when a disc is already in the navigation system.
- You cannot play an audio file/VCD disc with the option [2] set. Also, you may not play some music CDs with the option [2] set.

CD/Audio and Visual Files/iPod Operation

Music/Video Basic Operation

Most functions can be controlled from the source control screen and playback screen.

NOTE

- Set the remote controller mode switch to AUD mode before starting operation, see ***Switching the operation mode (P.151)***.
- To connect iPod to this unit, optional accessory KCA-iP202 or KCA-iP102 is necessary.
  When iPod is connected using the KCA-iP202, you can listen to audio and watch video. When iPod is connected using the KCA-iP102, you can only listen to audio.

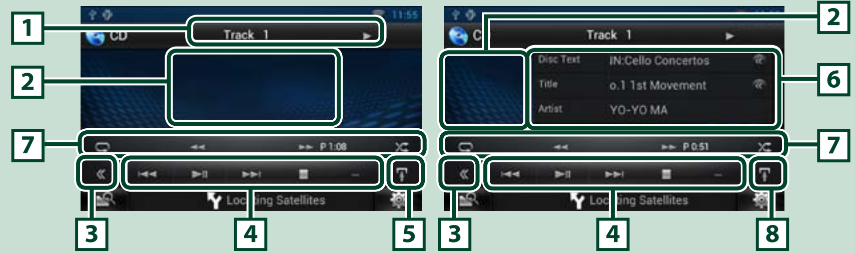
See the following sections for each source operation.

- **Music CD** ***(P.66)***
- **Disc media** ***(P.66)***
- **USB device** ***(P.68)***
- **SD Card** ***(P.68)***
- **iPod** ***(P.68)***

Music CD and disc media

NOTE

- In this manual, "Music CD" will be referred to as the general CDs which include music tracks in.
  "Disc media" will be referred to as CD/DVD disc which includes audio, picture or video files.
- The screen shot below is for CD. It may be different from the one for disc media.


Simple Control screen **List Control screen**

1 Information display

Displays the following information.

- **Track #**: Each time you touch this area, display switches between current track number, text, etc.
- **►, ►►, ►►I, ■, etc.**: Current play mode display
  The meanings of each icon are as follows; ► (play), ►► (fast forward), ◄◄ (fast backward), ►►I (search up), I◄◄ (search down), ■ (stop), ■R (resume stop), II (pause).

2 Movie display area/Control switching area

Touch to switch between the Simple Control and List Control screen. (Only for Music file)

Touch to display Video screen. (Only for Video file)

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see ***Multi function menu (P.70)***.

4 Multi function menu

Various functions can be performed by using keys in this area. For details on the menu, see ***Multi function menu (P.70)***.

5 Sub function key

Touch to display "Sub function menu" (7 in this table).

6 Track information

Displays the information of the current track.

For music CD and disc media, you can switch the current track information and the current folder list by touching the list switching key (8 in this table).

7 Sub function menu

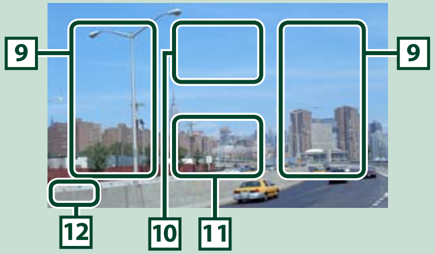
Various functions can be performed by using keys in this area. For details on the keys, see ***Sub function menu (P.71)***.

8 Sub function/ List switching key

Touch to display "Sub function menu" (7 in this table).

Touch and hold to switch between the track list and the CD-TEXT display (CD)/ID3 tag information (disc media only).

Video screen (disc media only)



9 Searching file area (disc media only)

Touch to search the next/previous file.

Scrolling from center of display to left or right performs fast backward or fast forward. Each time you touch each area, the speed changes; standard, 2 times, 3 times. To stop fast backward/forward, touch center of the display.

10 Menu display area (disc media only)

Touch to display the Control screen. For details, see ***Movie Control (P.76)***.

11 Key display area (disc media only)

Touch to display the last control screen.

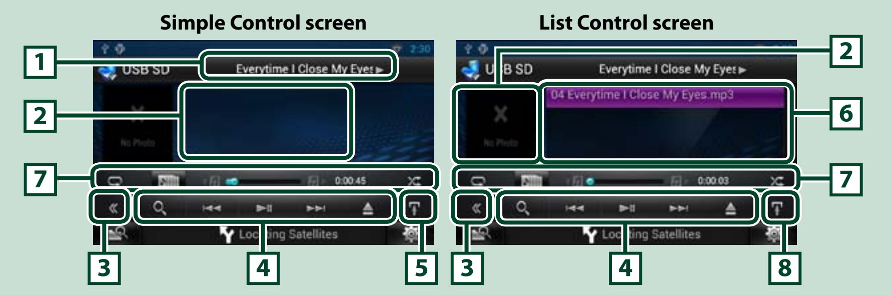
12 Screen setup display area

Touch and hold to display the screen control screen. See ***Monitor Screen Setup (P.128)***.

USB device, SD card and iPod

NOTE

- The screen shot below is for USB device. It may be different from the one for iPod and SD card.



1 Information display

Displays the following information.

- **Current file name**: Each time you touch this area, display switches between file number/folder number and file name.
- **►, ►►, etc.**: Current play mode display
  The meanings of each icon are as follows; ► (play, searching), ▮▮ (pause), ►► (forward manual search), ◄◄ (reverse manual search).

2 Artwork/Control switching area

Touch to switch between the Simple Control and List Control screen. (Only for Music file)

Touch to display Video screen. (Only for Video file)

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see ***Multi function menu (P.70)***.

4 Multi function menu

Various functions can be performed by using keys in this area. For details on the keys, see ***Multi function menu (P.70)***.

5 Sub function key

Touch to display "Sub function menu" (7 in this table).

6 Content list

Displays the list and content. The content of the list differ depending on the playback status and source.

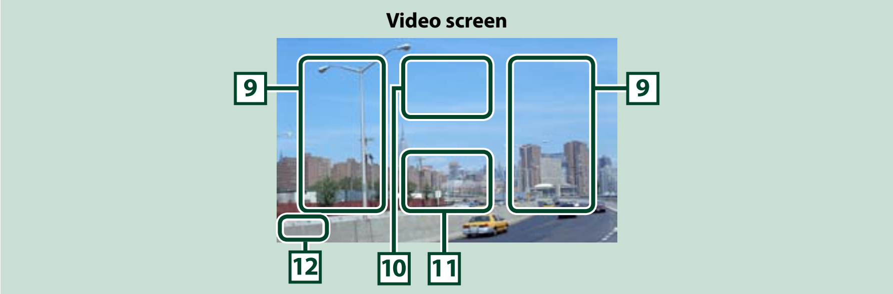
7 Sub function menu

Various functions can be performed by using keys in this area. For details on the keys, see ***Sub function menu (P.71)***.

8 Sub function/ List switching key

Touch to display "Sub function menu" (7 in this table).

Touch and hold to switch between the file list and the current file information.



9 Searching file area (Video file only)

- Touch to search the next/previous file.
- During slide show in USB mode, touching each area searches the next/previous music file.
- Scrolling from center of display to left or right performs fast backward or fast forward. To stop fast backward/forward, touch center of the display. This function is not available when there is no music file in the current folder.

10 Movie control display area

Touch to display the Movie control screen. For details, see ***Movie Control (P.76)***.

11 Key display area (Video file only)

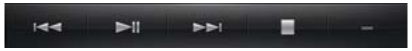
Touch to display the last control screen.

12 Screen setup display area

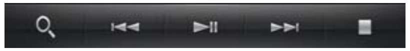
Touch and hold to display the screen control screen. See ***Monitor Screen Setup (P.128)***.

Multi function menu

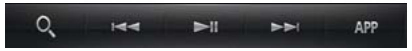
Music CD



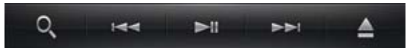
Disc media



iPod



USB device and SD card



The following functions can be performed by using keys in this area.

[🔍] (Only for disc media, iPod, USB device, and SD card)

Searches track/file. For details on search operation, see *Search Operation (P.72)*.

[I◀◀] [▶▶I]

Searches the previous/next track/file.

[▶] [II] (iPod only) / [▶II]

Plays or pauses.

[■] (Only for music CD and disc media)

Stops playback.

[⏏] (Only for iPod, USB device, and SD card)

Touch to disconnect the device. For details, see *How to Play Media (P.20)*.

[APP] (Only for iPod)

Touch to switch among the App mode and Normal mode cyclically.

App mode: The navigation system outputs the audio and video sent from the application running on your iPod touch or iPhone.

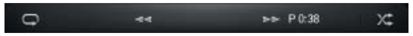
In the App mode, you can control only the [▶] (play), [II] (pause), [I◀◀] (search down), and [▶▶I] (search up) functions from this navigation system.

[📁»] [«📁] (Only for disc media, USB device, and SD card)

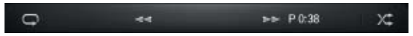
Searches previous/next folder.

Sub function menu

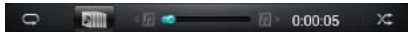
Music CD



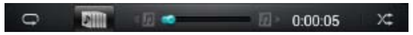
Disc media



iPod



USB device and SD card



The following functions can be performed by using keys in this area.

[🔁]

Repeats the current track/folder. Each time you touch the key, repeat mode switches in the following sequence;

CD, iPod: "track repeat" 🔂, "repeat off"

Disc media, USB device, SD card: "file repeat" 🔂, "folder repeat" 🔁, "repeat off"

[▦] (Only for iPod, USB device, and SD card)

Searches track from the album artwork list. For details on search operation, see *Search from album artwork (P.74)*.

[◀◀] [▶▶] (Only for music CD and disc media)

Fast forward or fast backward.

[«♫] [♫»] (Only for iPod, USB device, and SD card)

Plays the previous or next album in *Favorite list (P.75)*.

#:##:## or ##:##

For confirmation of play time.

During music CD playback, you can also confirm disc remaining time by touching time display.

Each time you touch, the display switches between "P ##:##" (track play time display) and "R ##:##" (disc remaining time).

[🔀]

Randomly plays all tracks in current folder/disc or in current playlist in the connected iPod.

Each time you touch the key, random mode switches in the following sequence;

CD: "track random" 🔀, "random off"

Disc media, USB device, SD card: "file random" 🔀, "random off"

iPod: "track random" 🔀, "album random" 🔀, "random off"

Status bar in center (Only for iPod, USB device, and SD card)

For confirmation of current playing position.

During USB device and iPod playback, you can drag the circle left or right to change the playing position.

Search Operation

You can search music or video files by the following operations.

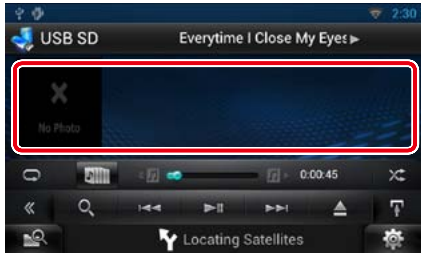
NOTE

- If you use a remote controller, you can jump directly to the desired track/file with entering the track/folder/file number, play time, etc. For details, see **Direct search mode (P.151)**.

List search

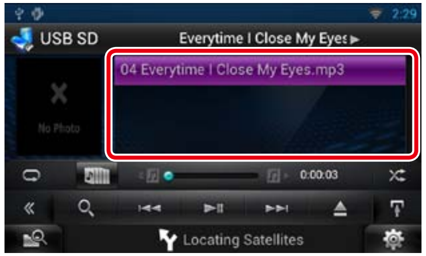
You can search tracks, folders, and files according to hierarchy.

1 | **Touch illustrated area.**


USB SD
Everytime I Close My Eyes
No Photo
0:00:45
Locating Satellites

List Control screen appears.

2 | **Touch desired track/file.**


USB SD
Everytime I Close My Eyes
No Photo
04 Everytime I Close My Eyes.mp3
0:00:03
Locating Satellites

Playback starts.

NOTE

- For disc media, you can switch the file list and folder list by touching [🔍].
- For disc media, you cannot display the list during random play and stop.

Other search

There are other search methods in order to narrow search for a song.

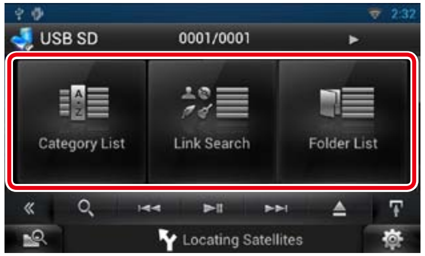
This function is not available when music CD is the current source.

1 | **Touch [🔍] in the control screen.**

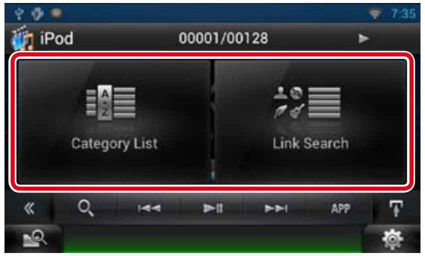
The search type screen appears.

2 | **Touch desired search method.**

USB device and SD card


USB SD
0001/0001
Category List
Link Search
Folder List
Locating Satellites

iPod


iPod
00001/00128
Category List
Link Search
APP

The list sorted in the way you selected appears.

See the following sections for each operation.

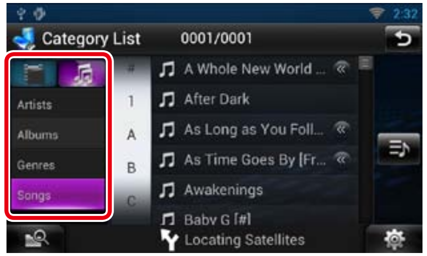
- [Category List]: You can search a file by selecting category *(P.73)*.
- [Link Search]: You can search a file of same artist/album/genre/composer as the current track *(P.73)*.
- [Folder List]: You can search a file according to hierarchy *(P.74)*.

NOTE

- For disc media, you can display the folder list directly by touching [🔍].

Category search (Only for iPod, USB device, and SD card)

1 | **Touch the desired category from the left part of the screen.**


Category List
0001/0001
Artists
Albums
Genres
Songs
1
A
B
C
A Whole New World ...
After Dark
As Long as You Foll...
As Time Goes By [Fr...
Awakenings
Baby G [#]
Locating Satellites

2 | **The list is sorted by selected category.**

3 | **Touch desired song.**

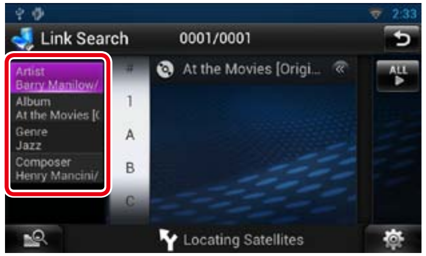
Playback starts.

NOTE

- To narrow the search you can select a letter from the alphabet list in the center of the display.
- For operations in the list screen, see ***Common Operation (P.26)***.

Link search (Only for iPod, USB device, and SD card)

1 | **Touch the desired link from the left part of the screen. You can select from artist, album, genre and composer.**


Link Search
0001/0001
Artist
Barry Manilow/
Album
At the Movies [(
Genre
Jazz
Composer
Henry Mancini/
1
A
B
C
At the Movies [Origi...
ALL
Locating Satellites

The link list corresponding to your selection appears.

NOTE

- The list is sorted by the way you selected.
  - **Artist**: Displays the album list of the artist.
  - **Album**: Displays all tunes of the current album.
  - **Genre**: Displays the artists list in which artists belong to the same genre.
  - **Composer**: Displays the album list of the composer of the current file.

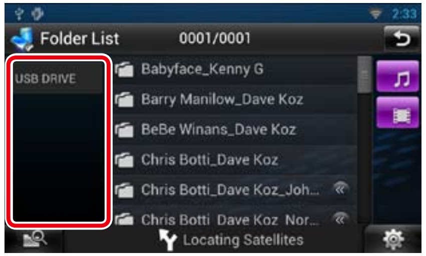
2 | **Touch to select desired item in the list. Repeat this step until you find the desired file.**

NOTE

- To narrow the search you can select a letter from the alphabet list in the center of the display.
- For operations in the list screen, see ***Common Operation (P.26)***.

Folder search (Only for disc media, USB device, and SD card)

1 Touch the desired folder.


2:33
Folder List
0001/0001
USB DRIVE
Babyface_Kenny G
Barry Manilow_Dave Koz
BeBe Winans_Dave Koz
Chris Botti_Dave Koz
Chris Botti_Dave Koz_Joh...
Chris Botti_Dave Koz_Nor...
Locating Satellites

Content of the folder are displayed in the right area of the screen.

2 Touch desired item from the content list.

Playback starts.

NOTE
- For operations in the list screen, see *Common Operation (P.26)*.

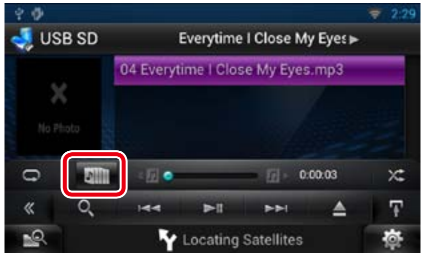
Search from album artwork (Only for iPod, USB device, and SD card)

You can search music files by selecting the album artwork.

1 Touch [⇧].

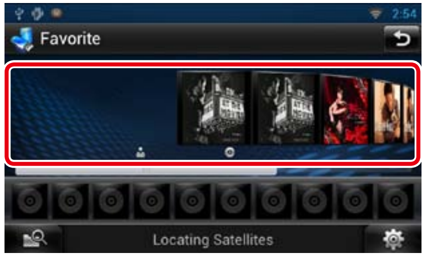
Sub function menu appears.

2 Touch [▦].


2:29
USB SD
Everytime I Close My Eyes
04 Everytime I Close My Eyes.mp3
No Photo
0:00:03
Locating Satellites

Favorite screen appears.

3 Touch desired artwork in the upper line.


2:54
Favorite
Locating Satellites

NOTE
- The key in the upper side of the screen functions differently depending on the status.
  - When [Load Albums] appears:
    You have not yet loaded any artwork. Touch the key to start loading.
  - When [Load More Albums] appears:
    Some artwork are not loaded. Touch the key to load all artwork. If you touch the key, the track being played may stop and another track may start playback.
  - When the key does not available:
    All artwork are already loaded.

4 Touch [►] on the selected artwork.

The first song in the album is played.

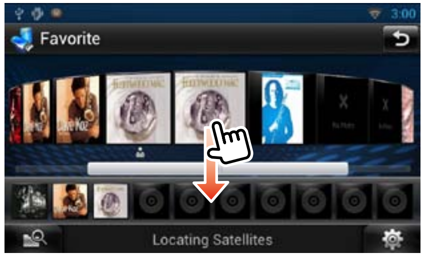
In addition, you can create your original playlist from this screen. For details, see *Favorite list (P.75)*.

NOTE
- After all tracks in the album are played, the same album is played again from the first track.
- The albums with no photo are not displayed.

Favorite list

You can create an original playlist of your favorite 10 albums by selecting album artworks.

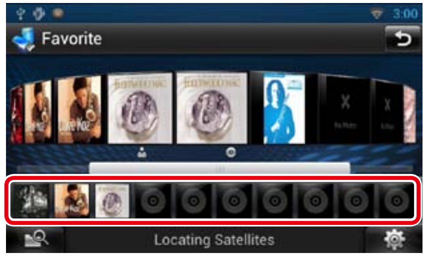
1 Touch and drag the desired album artwork in the upper line to the lower line.


3:00
Favorite
Locating Satellites

Selected album is registered to the favorite list.

NOTE
- The added album is placed on farthest right.
- You cannot register the same album already registered to the favorite list.
- Up to 10 albums can be registered to the list.

2 Touch the desired artwork in the favorite list.


3:00
Favorite
Locating Satellites

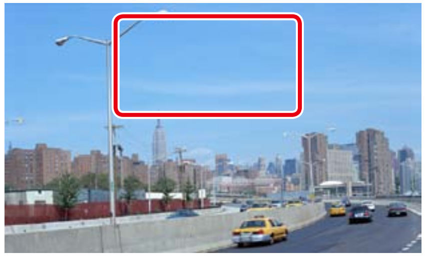
The selected album is played and the control screen appears.

NOTE
- The favorite list is played to the right starting with the selected album.
- To delete the album from the favorite list, touch and drag it to the upper line.
- You can change the playing order of the favorite list by dragging the artwork in the list.
- The favorite list mode is canceled in the following situations.
  - Playing another album from other list (folder list, category list, etc.)
  - Playing another album by touching the artwork in the upper line in the artwork list screen.
- The favorite list mode resumes after disconnecting/connecting the device or turning on/off. File being played, playing time code, favorite list content, favorite list order, etc. resumes if file configuration of the device is not changed.

Movie Control

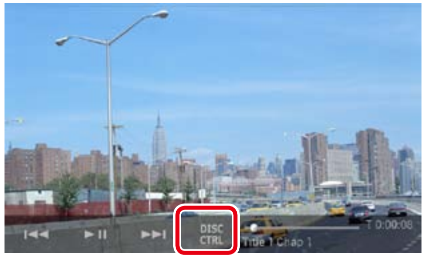
You can adjust the movie playback.

1 **In the playback screen, touch illustrated area.**



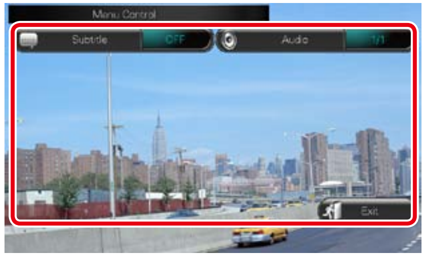
Movie control screen appears.

2 **Touch [Disc CTRL]. (Disc media only)**



Movie Control screen appears.

3 **Perform desired operation as follows.**



Changes subtitle language

Touch [Subtitle].

Changes audio language

Touch [Audio].

Exits the menu

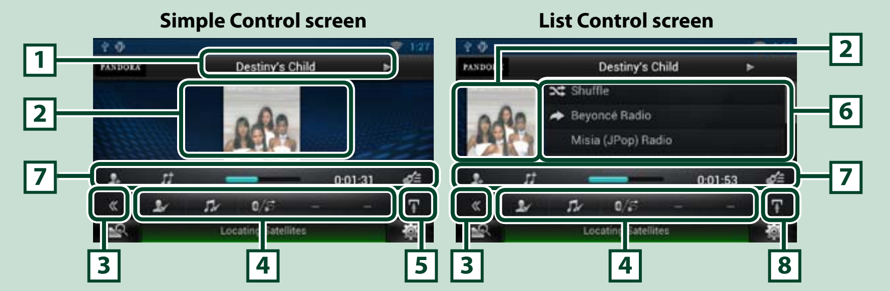
Touch [Exit].

Pandora® Operation

You can listen to the Pandora® on this navigation system by controlling the application installed in the iPhone, Android or BlackBerry.
To enter Pandora mode, touch [Pandora] icon in the Source launcher screen.

NOTE

- Install the latest version of the Pandora® application on your iPhone, Android or BlackBerry. *(P.170)*
  iPhone: Search for "PANDORA" in the Apple iTunes App Store to find and install the most current version.
  Android: Visit the Google Play and search for Pandora to install.
  BlackBerry: Visit www.pandora.com from the built in browser to download the Pandora application.
- For how to register the Bluetooth device (Android or BlackBerry), see *Registering the Bluetooth Unit (P.115)*.



1 Information display

Displays text information of current content that is being played.

2 Artwork/Control switching area

The artwork is displayed if available from current content. When the artwork is not available, "No Photo" is displayed.

Touch to switch between the Simple Control and List Control screen.

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see *Multi function menu (P.78)*.

4 Multi function menu

Various functions can be performed by using the keys in this area. For details on the keys, see *Multi function menu (P.78)*.

5 Sub function key

Touch to display "Sub function menu" (7 in this table).

6 Content information

Displays the information of the current content being played.

7 Sub function menu

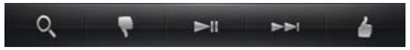
Various functions can be performed by using keys in this area. For details on the keys, see *Sub function menu (P.78)*.

8 Sub function/ List switching key

Touch to display "Sub function menu" (7 in this table).

Touch and hold to switch between the content list and the current content information.

Multi function menu



The following functions can be performed by using keys in this area.

[🔍]

Searches the station. For details on searching, see *Station list screen (P.79)*.

[👎] (Thumbs down)

Thumbs down to the current song and skip to the next song.

[▶II]

Plays or pauses the content of the current station/channel.

[▶▶I]

Skips the current song.
(Note this function is disabled when the Pandora skip limitation is exceeded.)

[👍] (Thumbs up)

Registers the current content as favorite content.

[👤] (Bookmark Artist)

Bookmark an artist in the current content.

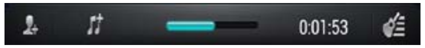
[♫] (Bookmark Song)

Bookmark a song in the current content.

[ʙ/♫]

Displays a Device select screen that allows you to select the device to be used for Pandora Internet radio reception. See *Device select (P.78)*

Sub function menu



The following functions can be performed by using keys in this area.

Status bar in center

Displays the elapsed time since when you select the station and status bar which shows current location.

[👤+]

Creates a new station based on an artist being played.

[♫+]

Creates a new station based on a song being played.

[🎸]

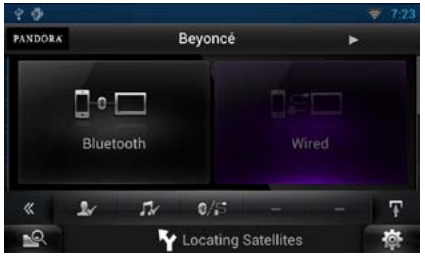
Displays the genre list screen. For details on searching, see *Genre list screen (P.79)*.

Device select

You can display a Device select screen for device selection.

1 | Touch [ʙ/♫] in the control screen.

The Device select screen appears.


7:23
PANDORA
Beyoncé
Bluetooth
Wired
Locating Satellites

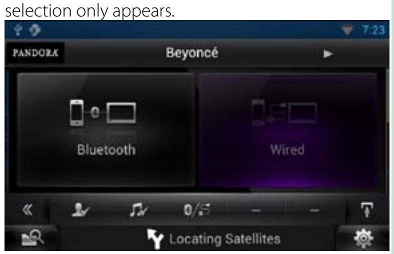
Device selection

Bluetooth: Uses the Android/BlackBerry connected via Bluetooth for Pandora Internet radio reception.

Wired: Uses the iPhone connected via the KCA-iP202/ KCA-iP102 (optional accessory) for Pandora Internet radio reception.

NOTE

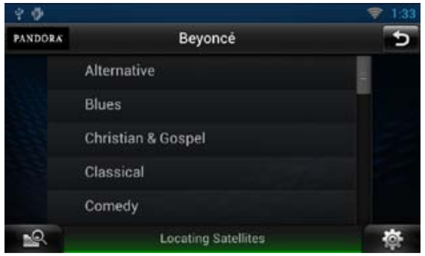
- If you touch [ʙ/♫] when no device has been connected, a popup screen that allows device selection only appears.


7:23
PANDORA
Beyoncé
Bluetooth
Wired
Locating Satellites

- An iPhone connected via Bluetooth cannot be used for Pandora Internet radio reception.
- If the volume of Pandora Internet radio received by a Bluetooth device is too low, raise it on the Bluetooth device.

Genre list screen

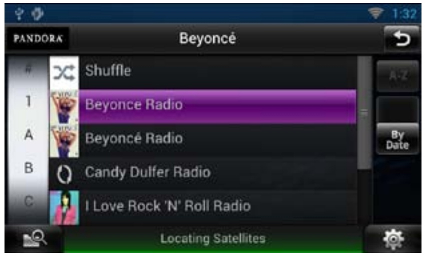
You can perform the following functions from this screen.


1:33
PANDORA
Beyoncé
Alternative
Blues
Christian & Gospel
Classical
Comedy
Locating Satellites

The selected genre is created as a new station.

Station list screen

You can perform the following functions from this screen.


1:32
PANDORA
Beyoncé
#
1
A
B
C
Shuffle
Beyonce Radio
Beyoncé Radio
Candy Dulfer Radio
I Love Rock 'N' Roll Radio
A-Z
By Date
Locating Satellites

Selects the station

Touch the station name in the list.

Sort the list in alphabetical order

You can select the desired letter from the list which corresponds to the station name to help narrow the search.

Display the genre list

Displays the genre list.

Sort the list by date

Touch [ByDate]. The list is sorted to begin with the last registered station.

NOTE

- You can operate Pandora by using the remote controller. However, only playing, pausing, and skipping are available.
- You cannot select iPod as rear source when you select Pandora as main source in dual zone function.

USB/SD/iPod/DivX Setup

You can perform setup when using USB/SD/iPod/ DivX.

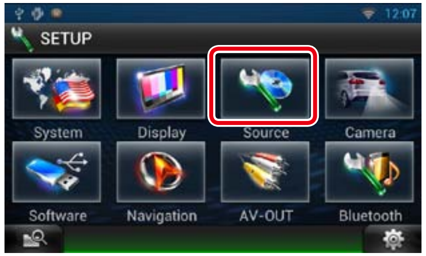
1 | **Touch [⚙].**

Quick menu appears.

2 | **Touch [SETUP].**

SETUP Menu screen appears.

3 | **Touch [Source].**


12:07
SETUP
System
Display
Source
Camera
Software
Navigation
AV-OUT
Bluetooth

Source SETUP Menu screen appears.

4 | **Touch [USB], [iPod] or [DivX] in the list.**

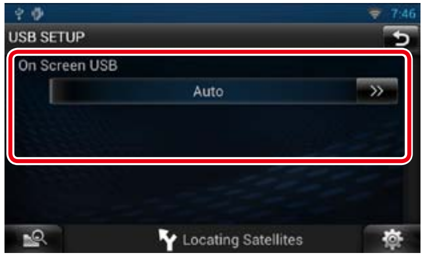
Each setup screen appears.

See the following section for each setting.

- *USB SD setup (P.80)*
- *iPod setup (P.81)*
- *DivX® VOD (P.81)*

USB SD setup

1 | **Set each item as follows.**


7:46
USB SETUP
On Screen USB
Auto
Locating Satellites

On Screen USB

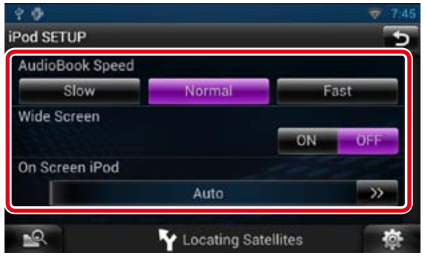
Set how information from a USB device or SD is displayed.

Auto (Default): Information appears for 5 seconds when updated.

OFF: Does not display any information.

iPod setup

1 | **Set each item as follows.**


7:45
iPod SETUP
AudioBook Speed
Slow
Normal
Fast
Wide Screen
ON
OFF
On Screen iPod
Auto
Locating Satellites

AudioBook Speed

Set the audio book playback speed. Select from [Slow], [Normal] (default), and [Fast].

Wide Screen*

Set Wide Screen. Set [ON] (default) or [OFF].

On Screen iPod

Set how to display the information of the iPod.

Auto (Default): Information appears for 5 seconds when updated.

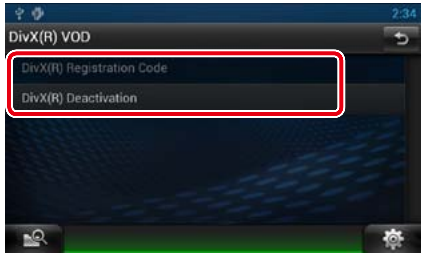
OFF: Does not display any information.

* **This setting is not available when an iPod is connected.**

DivX® VOD (DNN990HD)

This feature is available only for Central and South America sales area.

1 | **Set each item as follows.**


2:34
DivX(R) VOD
DivX(R) Registration Code
DivX(R) Deactivation

DivX(R) Registration Code

Checks the registration code. This code is needed when making a disc which has DRM (Digital Rights Management).

DivX(R) Deactivation

Deregisters the unit which is already registered. After you touch the key, a confirmation message appears. Follow the message and complete the operation.

NOTE

- [DivX(R) Registration Code] is disabled when a DVD is being played.
- When downloading a DivX VOD file controlled by DRM, register the code appeared on the screen. Otherwise the file may not be able to play with this navigation system. Remaining number of viewing is displayed when playing a DivX VOD file with the viewing restriction. When the remaining number of viewing reached 0, a warning message appears and the file cannot be played.

Cloud Storage Operation

Starting procedure

Make preparations for allowing this unit to play the music files uploaded to Dropbox.

Preparation

- You must have a connection with the internet using Wi-Fi. See *Wi-Fi Setup (P.32)*.
- You can use a user account when you have logged in the Owner or User.
- To use this service, a Dropbox account is required.

1 | Upload music files to Dropbox.

2 | In the Route Collector site, create a folder and playlist of the files to be played.

For how to set the folder and playlist of the files to be played, refer to the website.

http://www.route-collector.com/

Available content

Content that can be delivered or played by this unit are as follows:

- Audio file: MP3 (.mp3), AAC-LC (.m4a/ .aac), WMA (.wma), WAV (.wav)
- Copyrighted content cannot be played.

Music Basic Operation

The music files uploaded to Dropbox can be played.

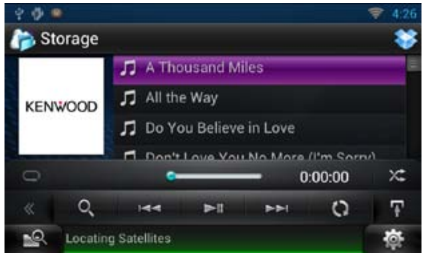
Preparation

- To play the files uploaded to Dropbox, setting is required. See *Starting procedure (P.82)*.

1 | Press the <HOME> button.

2 | Touch [⊞] in the Source launcher panel.

3 | Touch [☁ Storage].


4:26
Storage
KENWOOD
A Thousand Miles
All the Way
Do You Believe in Love
Don't Love You No More (I'm Sorry)
0:00:00
Locating Satellites

[▶II]

Plays or pauses.

[I◀◀] [▶▶I]

Searches the previous/next file.

[🔍]

Searches file. For details on search operation, see *Category search (P.83)*.

[🔁]

Repeats the current file. Each time you touch the key, repeat mode switches on or off.

[🔀]

Randomly plays all files in current folder or in current playlist.

Each time you touch the key, random mode switches in the following sequence;

"file random" 🔀, "random off"

#:##:##

For confirmation of play time.

Status bar in center

For confirmation of current playing position. You can drag the circle left or right to change the playing position.

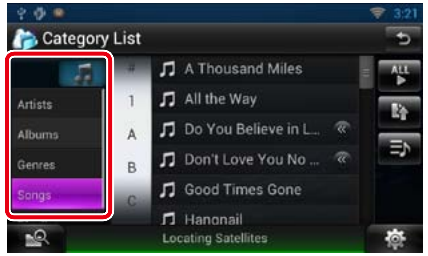
Category search

You can search music files by the following operations.

1 | Touch [🔍] in the control screen.

The search type screen appears.

2 | Touch the desired category from the left part of the screen.


3:21
Category List
Artists
Albums
Genres
Songs
#
1
A
B
C
A Thousand Miles
All the Way
Do You Believe in L...
Don't Love You No ...
Good Times Gone
Hangnail
ALL
Locating Satellites

3 | The list is sorted by selected category.

4 | Touch desired music file.

Playback starts.

NOTE

- To narrow the search you can select a letter from the alphabet list in the center of the display.
- For operations in the list screen, see *Common Operation (P.26)*.

Kenwood Wireless Link Operation

Starting procedure

By using the Wi-Fi function, media files can be shared with another media server device or client (player) device.

Preparation
- Turn on the function of Wi-Fi connection to a media server device or client device. See *Wi-Fi Setup (P.32)*.

Media Server function

Plays the content stored in the USB memory or SD card connected to this unit via another network media player (client device).

- We confirmed normal operation using the following network media players (software):
- Windows Media Player 12

Media Player function

Plays the content stored in another media server device via this unit.

- We confirmed normal operation using the following media servers (software):
- Windows Media Player 12

Media Controller function

Allows you to handle the content stored in another media server device via this unit and play them on another network media player (client device).

Media Renderer function

Plays the content being operated on another media controller thorugh this unit.

Available content

Content that can be delivered or played by this unit are as follows:

- Audio file: MP3 (.mp3), AAC-LC (.m4a/ .aac), WMA (.wma), WAV (.wav)
- Video file: MPEG-1/2 (.mpg/ .mpeg/ .m2p), MPEG-4 (.mp4/ .m4v), WMV (.wmv/ .m2ts)
- Copyrighted content cannot be played.

Media Server function

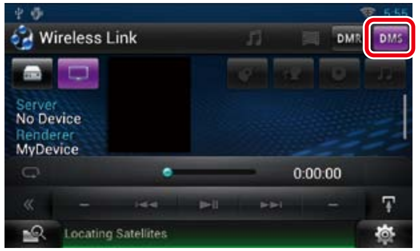
Plays the content stored in the USB memory or SD card connected to this unit via another network media player (client device).

1 Press the <HOME> button.

2 Touch [ ] in the Source launcher panel.

3 Touch [Wireless Link].

4 Touch [DMS].


Wireless Link
DMR
DMS
Server
No Device
Renderer
MyDevice
0:00:00
Locating Satellites

The server function is turned on.

5 Connect from the client device.

Operate the client device to connect to the server.

Server name: DNN990HD or DNN770HD.

Media Player function

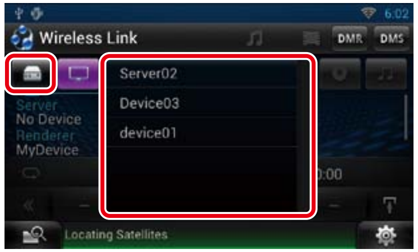
Plays the content stored in another media server device via this unit.

1 Press the <HOME> button.

2 Touch [ ] in the Source launcher panel.

3 Touch [Wireless Link].

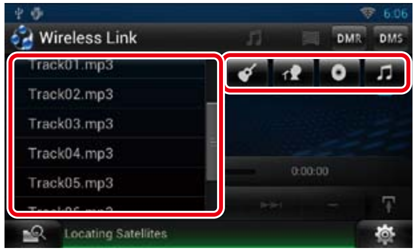
4 Connect to the media server.


Wireless Link
DMR
DMS
Server02
Device03
device01
Server
No Device
Renderer
MyDevice
Locating Satellites

A list of detected media servers is displayed.

Touch the server name of the server to connect.

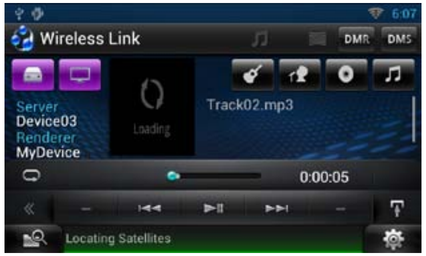
5 Select the content to play.


Wireless Link
DMR
DMS
Track01.mp3
Track02.mp3
Track03.mp3
Track04.mp3
Track05.mp3
0:00:00
Locating Satellites

Select the category of the content to play.

A list of detected content is displayed.

Plays screen


Wireless Link
DMR
DMS
Server
Device03
Renderer
MyDevice
Loading
Track02.mp3
0:00:05
Locating Satellites

[▶II]

Plays or pauses.

[I◀◀] [▶▶I]

Searches the previous/next file.

[🔁]

Repeats the current file. Each time you touch the key, repeat mode switches on or off.

[🎵 ● 🎞]

Switches between music and video files.

#:##:## or ##:##

For confirmation of play time.

Status bar in center

For confirmation of current playing position. You can drag the circle left or right to change the playing position.

Media Controller function

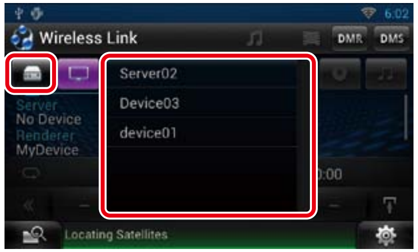
Allows you to handle the content stored in another media server device via this unit and play them on another network media player (client device).

1 | Press the <HOME> button.

2 | Touch [▦] in the Source launcher panel.

3 | Touch [Wireless Link].

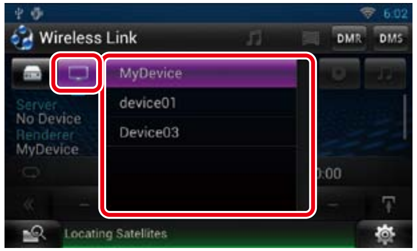
4 | Connect to the media server.


Wireless Link
DMR
DMS
Server02
Device03
device01
Server
No Device
Renderer
MyDevice
Locating Satellites

A list of detected media servers is displayed.

Touch the server name of the server to connect.

5 | Select a network media player to be used for playback.


Wireless Link
DMR
DMS
MyDevice
device01
Device03
Server
No Device
Renderer
MyDevice
Locating Satellites

A list of detected network media players is displayed.

Touch the name of the network media player to be used for playback.

Media Renderer function

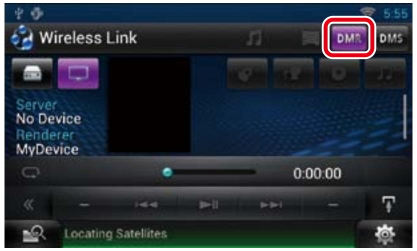
Plays the content being operated on another media controller through this unit.

1 | Press the <HOME> button.

2 | Touch [▦] in the Source launcher panel.

3 | Touch [Wireless Link].

4 | Touch [DMR].


Wireless Link
DMR
DMS
Server
No Device
Renderer
MyDevice
0:00:00
Locating Satellites

The Rendering function is turned on.

5 | Establish connection from the media controller.

Operate the media controller to connect to this unit.

This unit:DNN990HD or DNN770HD.

HD Radio™ tuner Operation

About HD Radio™ Technology

HD Radio®

This HD Radio receiver enables:

PSD
HD2/HD3
Bookmark
Digital Sound
iTunes® Tagging
Artist Experience

PSD

- Program Service Data provides song name, artist, station ID, and other relevant data streams

HD2/HD3

- Adjacent to traditional main stations are HD2/HD3 Channels, providing new original formats on the FM dial

Bookmark

- Bookmark is a music & product discovery feature that enables users to store information about content on the radio and delivers interactive information via QR codes

Digital Sound

- HD Radio broadcasts deliver crystal clear, CD-like digital audio quality to consumers

iTunes® Tagging

- iTunes® Tagging provides users the means to “tag” broadcast radio content for later review and purchase from the iTunes Store

Artist Experience

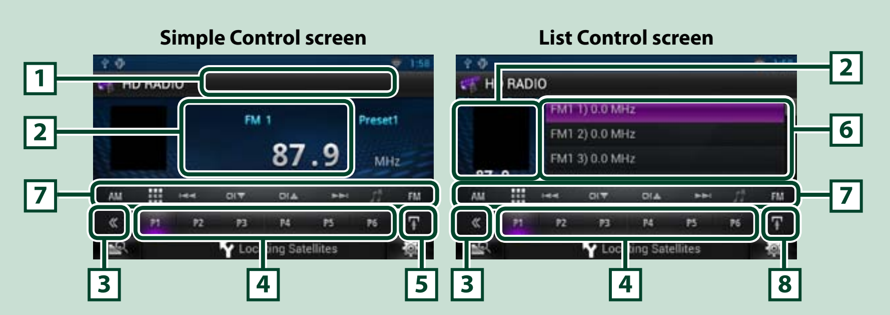
- Visual images, such as album art of over-the-air broadcasts from HD Radio stations

HD Radio tuner Basic Operation

Most functions can be controlled from the source control screen.

NOTE

- Set the remote controller mode switch to AUD mode before starting operation, see ***Switching the operation mode (P.151)***.



1 PS/Station name display

Displays the PS name or station name.

2 Information display/Control switching area

Displays the following information.

- **Picture:** The picture data or station Logo data is displayed if available from current content.
- **[FM1] etc.**: Band display
- **MHz/kHz**: Frequency display
- **Preset #**: Preset number
- **HD#**: Channel display

Touch to switch between the Simple Control and List Control screen.

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see ***Multi function menu (P.90)***.

4 Preset key/Multi function menu

Recalls the memorized station or channel. When touched for 2 seconds, stores the current receiving station or channel in memory.

When switched, various functions can be performed by using keys in this area.

For details on the menu, see ***Multi function menu (P.90)***.

5 Sub function key

Touch to display “Sub function menu” (7 in this table).

Continued

6 Preset list

Displays the list of preset stations or channels and the information.

7 Sub function menu

The following functions can be performed by using keys in this area.

- Switches the band: Touch [AM] or [FM].
- Tunes in a station: Touch [|◀◀] [▶▶|]. The method of frequency switching can be changed. See Seek mode.
- Selects a channel: Touch [CH ▼] or [CH ▲].
- Stores the information about the song being received: Touch [♫]. See ***Bookmark (P.95)***.
- Tunes in by entering direct number:
  Touch [⊞] and enter the desired number. For details, see ***Direct search (P.92)***.

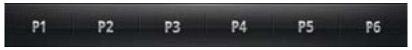
8 Sub function/ List switching key

Touch to display "Sub function menu" (7 in this table).

Touch and hold to switch between the preset list and the information list.

In HD Radio tuner mode, tuned program information will be displayed.

Multi function menu



The functions of each key are as follows.

[P1] - [P6]

Select the preset station. Touch for 2 seconds to store the current station into the preset memory.

[🔍]

Select search method from preset station selection, channel selection or bookmark selection. For details on search operation, see ***Selecting Operation (P.91)***, ***Bookmark (P.95)***.

[TI]

Sets the traffic information mode on. For details, see ***Traffic Information (P.93)***.

[SEEK]

Switches the seek mode in the following sequence; [AUTO1], [AUTO2], [MANUAL].

- AUTO1: Tunes in a station with good reception automatically.
- AUTO2: Tunes in stations in memory one after another.
- MANUAL: Switches to the next frequency manually.

[AME]

Selects the auto memory mode. For details, see ***Auto memory (P.91)***.

[RCV]

Switches the receive mode in the following sequence; [AUTO], [DIGITAL], [ANALOG]. For details, see ***Receive Mode (P.94)***.

[PTY]

Searches a program by setting program type. For details, see ***Search by program type (P.92)***.

Memory Operation

Auto memory

You can automatically store stations with good reception to memory.

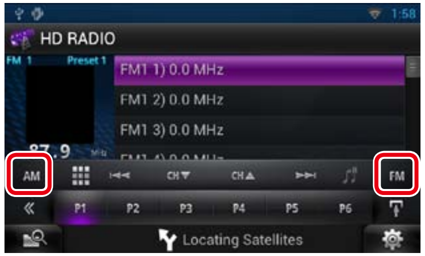
NOTE

- Auto memory terminates when 6 stations are stored or when all stations are tuned in.
- Auto memory ends automatically if you do not operate within 10 seconds.

1 Touch [⇧].

Sub function menu appears.

2 Touch desired band key.



3 Touch [«] in the control screen.

The multi function menu appears.

4 Touch [AME] in the multi function menu.

5 Touch [◀◀] or [▶▶] in the sub function menu.

Auto memory starts.

Manual memory

You can store the current receiving station or channel in memory.

1 Select a station or channel you wish to store in memory.

2 Touch [P#] (#:1-6) in which you want to store the station or channel for 2 seconds until a beep sounds.

Selecting Operation

Preset select

You can list and select memorized station or channel.

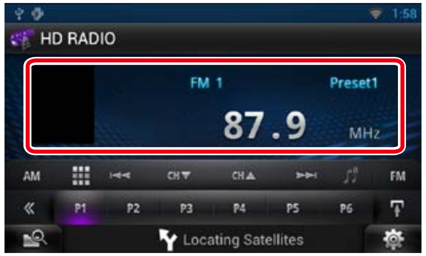
Selecting from the multi function menu

1 Touch the desired number from P1 to P6.

The navigation system will tune to the selected station or channel.

Selecting from the preset list

1 Touch illustrated area.

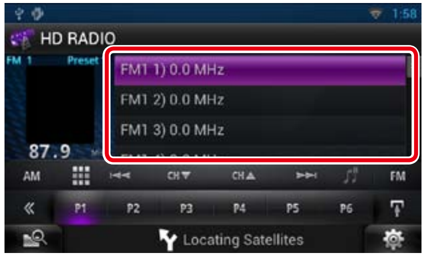


List Control screen appears.

2 Touch and hold [⇧].

Preset list appears.

3 Select a station or channel from the list.



NOTE

- Touching [🔍] and then [Preset List] displays the preset channel list. You can also select your desired channel from the list.

Search by program type

You can tune to a station with a specific program type when listening to FM.

1 **Touch [«] in the control screen.**

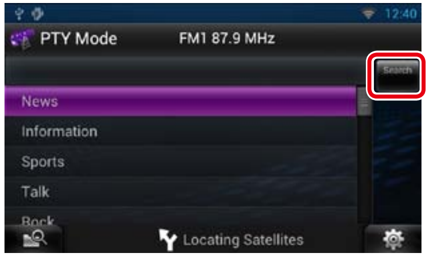
The multi function menu appears.

2 **Touch [PTY] in the multi function menu.**

TUNER PTY Mode screen appears.

3 **Select a program type from the list.**

4 **Touch [Search].**

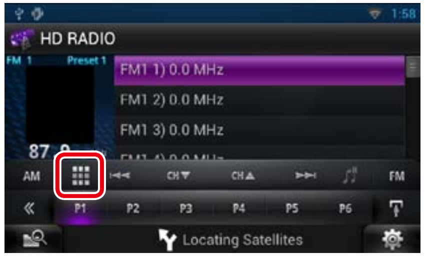

12:40
PTY Mode
FM1 87.9 MHz
Search
News
Information
Sports
Talk
Rock
Locating Satellites

You can search a station of the selected program type.

Direct search

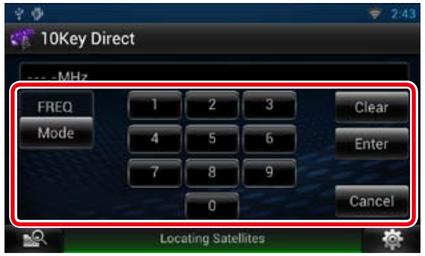
You can tune in by entering the desired frequency or channel number.

1 **Touch [▦].**


1:58
HD RADIO
FM 1
Preset 1
FM1 1) 0.0 MHz
FM1 2) 0.0 MHz
FM1 3) 0.0 MHz
87.9
AM
CH▼
CH▲
FM
P1
P2
P3
P4
P5
P6
Locating Satellites

10Key Direct screen appears.

2 **Enter the frequency/ channel number and touch [Enter].**


2:43
10Key Direct
- - - -MHz
FREQ
Mode
1
2
3
4
5
6
7
8
9
0
Clear
Enter
Cancel
Locating Satellites

NOTE

- To cancel the direct search, touch [Cancel].
- To clear the number you entered, touch [Clear].
- For HD Radio tuner, you can search by frequency. Each time you touch [Mode] in the left part of the screen, it changes the mode between frequency entering mode and channel entering mode.

Category/Channel search

You can specify the desired category and select a channel.

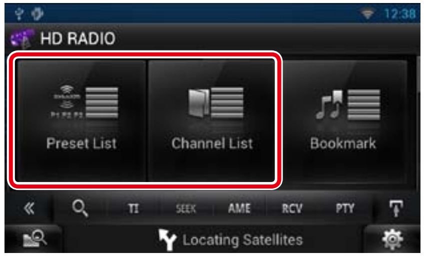
1 **Touch [«] in the control screen.**

The multi function menu appears.

2 **Touch [🔍] in the multi function menu.**

The list type screen appears.

3 **Touch [Preset List] or [Channel List].**


12:38
HD RADIO
Preset List
Channel List
Bookmark
TI
SEEK
AME
RCV
PTY
Locating Satellites

The previously used category or channel list appears.

4 **Select the desired content from the list.**

NOTE

- Each time you touch [Info Change] in the channel list, switches the sequence of the list.
  Song title, artist name, album name

Traffic Information

You can listen and watch the traffic information automatically when a traffic bulletin starts.

However, this feature requires a Radio Broadcast Data System that includes the TI information.

1 **Touch [«] in the control screen.**

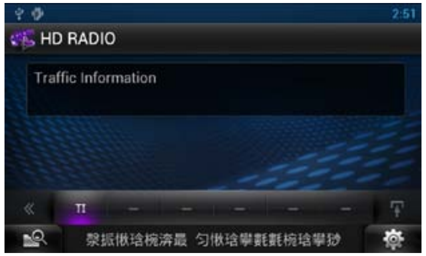
The multi function menu appears.

2 **Touch [TI] in the multi function menu.**

Traffic information mode is set.

When the traffic bulletin starts

The Traffic Information screen appears automatically.


2:51
HD RADIO
Traffic Information
TI

NOTE

- It is necessary to have Traffic Information function set to on in order to have the Traffic Information screen appear automatically.
- The volume setting during reception of traffic information is automatically stored. The next time the traffic information is received, this unit recalls the volume setting automatically.

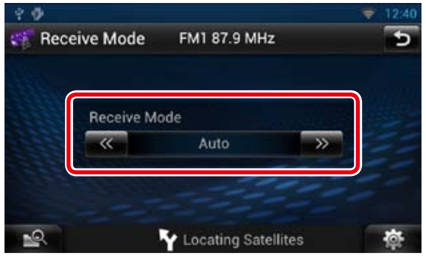
Receive Mode

You can set the radio broadcasts receive mode.

1 **Touch [«] in the control screen.**
The multi function menu appears.

2 **Touch [RCV] in the multi function menu.**
HD Radio tuner Mode screen appears.

3 **Select the receive mode from [Auto], [Digital], and [Analog] using [◄] and [►].**


12:40
Receive Mode
FM1 87.9 MHz
Receive Mode
«
Auto
»
Locating Satellites

NOTE
- If you select [Auto], tunes to analog broadcast automatically when there is no digital broadcast.

iTunes Tagging

You can tag your music using an iTunes Tagging enabled HD Radio tuner.

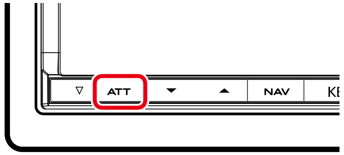
The saved songs will then be stored in a playlist called "Tagged" in iTunes the next time you sync your iPod with your computer. "Tagged" songs can then be directly purchased and downloaded from the Apple iTunes Music Store by clicking them.

Registering a tag

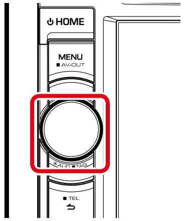
NOTE
- "TAG" will be indicated on the display when song information can be registered.

1 **Press the button instructed in each diagram for 1 second during listening to the song from HD Radio station.**

DNN990HD

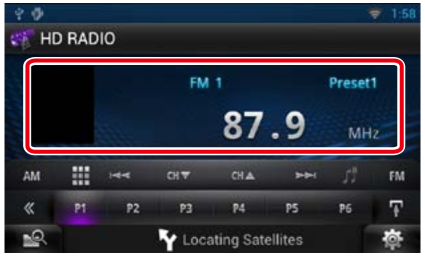


DNN770HD


HOME
MENU
AV-OUT
TEL

Checking the memory usage

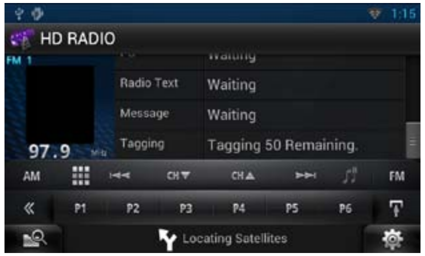
1 **Touch illustrated area.**


1:58
HD RADIO
FM 1
Preset1
87.9
MHz
AM
CH▼
CH▲
FM
«
P1
P2
P3
P4
P5
P6
Locating Satellites

List control screen appears.

2 **Touch and hold [⇧].**
Information list appears.

3 **Scroll down the list and confirm "Tagging Information".**


1:15
HD RADIO
FM 1
97.9
AM
CH▼
CH▲
FM
«
P1
P2
P3
P4
P5
P6
Locating Satellites

Radio Text Waiting
Message Waiting
Tagging Tagging 50 Remaining

NOTE
- Up to 50 tags can be registered to this unit. When iPod is connected, the tag information registered to this unit is transferred to the connected iPod.

Bookmark

Stores tag information (title, artist, album, URL, and description) about the song you are listening to now.

Detailed information and QR codes can be displayed according to the stored tag information.

Registering a bookmark

1 **Touch [⇧].**
Sub function menu appears.

2 **Touch [♫].**
Registers a bookmark.

NOTE
- Up to 100 bookmarks can be registered to this unit.

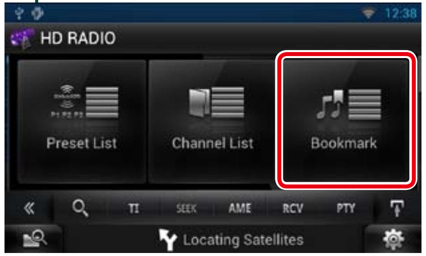
Bookmark list

Displaying a list of registered bookmarks and detailed information and QR code of the song.

1 **Touch [«] in the control screen.**
The multi function menu appears.

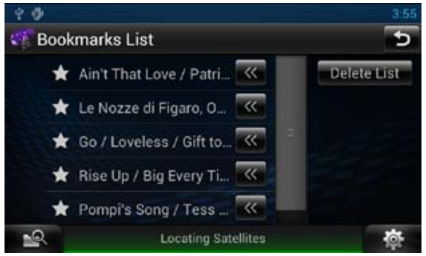
2 **Touch [🔍] in the multi function menu.**
The list type screen appears.

3 **Touch [Bookmark].**

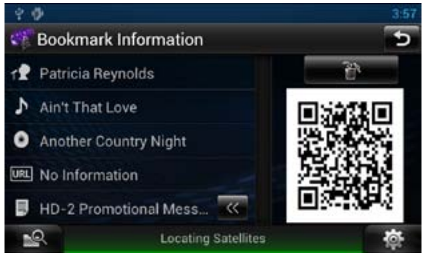

12:38
HD RADIO
Preset List
Channel List
Bookmark
TI
SEEK
AME
RCV
PTY
Locating Satellites

The Bookmark List appears.

4 **Select the desired bookmark from the list.**


3:55
Bookmarks List
Ain't That Love / Patri...
Le Nozze di Figaro, O...
Go / Loveless / Gift to...
Rise Up / Big Every Ti...
Pompi's Song / Tess ...
Delete List
Locating Satellites

The bookmark infomation appears.


3:57
Bookmark Information
Patricia Reynolds
Ain't That Love
Another Country Night
No Information
HD-2 Promotional Mess...
Locating Satellites

[🗑]
Deletes the bookmarks being displayed.

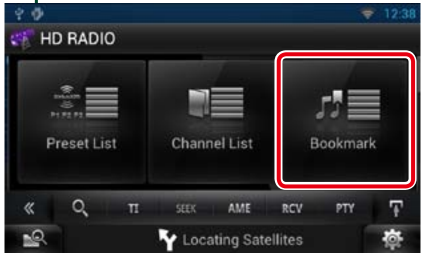
Bookmark delete

Deleting a bookmark.

1 **Touch [«] in the control screen.**
The multi function menu appears.

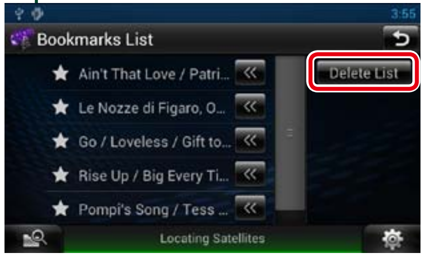
2 **Touch [🔍] in the multi function menu.**
The list type screen appears.

3 **Touch [Bookmark].**


12:38
HD RADIO
Preset List
Channel List
Bookmark
TI
SEEK
AME
RCV
PTY
Locating Satellites

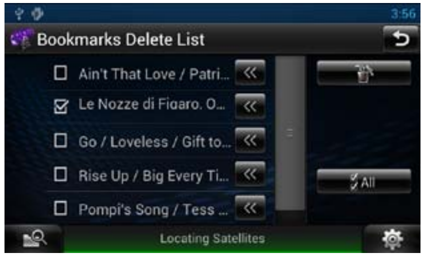
The Bookmark List appears.

4 **Touch [Delete List].**


3:55
Bookmarks List
Ain't That Love / Patri...
Le Nozze di Figaro, O...
Go / Loveless / Gift to...
Rise Up / Big Every Ti...
Pompi's Song / Tess ...
Delete List
Locating Satellites

The Bookmark Delete List appears.

5 **Select the bookmark to delete from the list.**


3:56
Bookmarks Delete List
☐ Ain't That Love / Patri...
☑ Le Nozze di Figaro, O...
☐ Go / Loveless / Gift to...
☐ Rise Up / Big Every Ti...
☐ Pompi's Song / Tess ...
All
Locating Satellites

All
Select all bookmarks.

6 **Touch [🗑].**
Deletes all the selected bookmark(s)

SiriusXM™ Satellite Radio Operation

SiriusXM™ Basic Operation

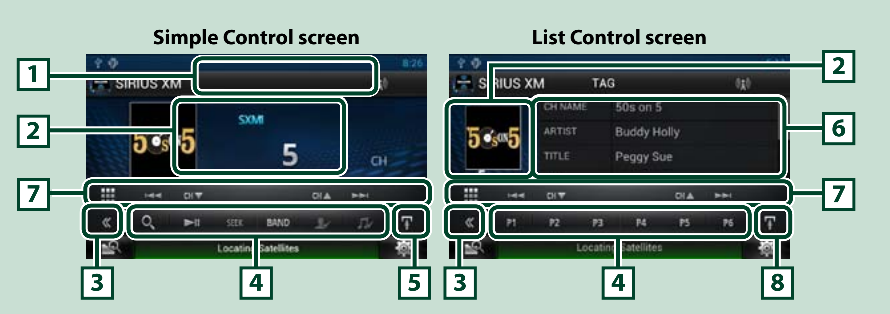
Most functions can be controlled from the source control screen.

Before use

- SiriusXM Satellite Radio operation requires the connection of the optional SiriusXM Connect Vehicle Tuner. To activate the SiriusXM Vehicle Connect tuner, you will need the Radio ID.
- **Make a note of your Radio ID:** To confirm your Radio ID, tune to channel 0. The letters I, O, S and F are not used in any Radio ID. The Radio ID is also located on the label of the SiriusXM Connect Vehicle Tuner.
- **How to activate your SiriusXM Service:** Go to www.siriusxm.com/activatenow or call 1-866-635-2349 to activate your SiriusXM Vehicle Connect Tuner.
  To activate SiriusXM Canada service go to www.xmradio.ca and click on "ACTIVATE RADIO" in the top right corner, or call 1-877-438-9677
- SiriusXM service is only available in North America.

NOTE

- Set the remote controller mode switch to AUD mode before starting operation, see ***Switching the operation mode (P.151)***.


Simple Control screen **List Control screen**

1 Signal Strength indication

Displays the received signal strength of the SiriusXM tuner.

2 Information display/Control switching area

Displays the following information.

- **[SXM1], etc.**: Band display
- **Preset #**: Preset number
- **#CH**: Channel display
- **Logo**: Channel logo display

Touch to switch between the Simple Control and List Control screen.

3 Multi function key

Touch to switch the multi function menu. For details on the menu, see ***Multi function menu (P.100)***.

4 Preset key/Multi function menu

Recalls the memorized channel. When touched for 2 seconds, the current channel being received is stored to the memory.

When switched, various functions can be performed by using keys in this area.

For details on the menu, see ***Multi function menu (P.100)***.

5 Sub function key

Touch to display "Sub function menu" (7 in this table).

6 Information list

Displays information about the current music being played: Channel Name, Artist Name, Song Title, Content Info, Category Name, Channel Description, Similar Channels

7 Sub function menu

The following functions can be performed by using keys in this area.

- **Tunes in a station**: Touch [CH▼] [CH▲].
- **Searches the previous/next track**: Touch [I◀◀] [▶▶I]. Fast forward/fast backward when keep on touching. [I◀◀] change the Replay. See ***SiriusXM Replay™ (P.105)***.
- **Tunes in by entering direct number**: Touch [▦] and enter the desired number. For details, see ***Direct search (P.102)***.

8 Sub function/ List switching key

Touch to display "Sub function menu" (7 in this table).

Touch and hold to switch between the preset list and the information list.

Multi function menu

P1
P2
P3
P4
P5
P6

The functions of each key are as follows.

[P1] - [P6]

Select the preset channel. Touch for 2 seconds to store the current station into the preset memory.

[🔍]

Select search method from preset channel selection or category/channel search. For details on search operation, see *Selecting Operation (P.101)*.

[▶II]

Plays or pauses. See *SiriusXM Replay™ (P.105)*.

[SEEK]

Switches the seek mode in the following sequence; [SEEK1], [SEEK2].

- SEEK1: Tunes channels one after the other.
- SEEK2: Selects channels in preset (memory) one after the other.

[BAND]

Switches the band.

[👤✓]/[♫✓]

Touch for 2 seconds to register content as Alert content.

- [👤✓]: Registers the artist of the song you are listening to now as alert content.
- [♫✓]: Registers the song you are listening to now as alert content.

For details, see *Song, Artist and Game Alerts (P.104)*.

[🏙]

Turns the City alert function on or off.
For details, see *City select for Content alerts (P.109)*.

[⟲]

Listen to the on-air song (live).

Memory Operation

Manual memory

You can store the current receiving station or channel in memory.

1. **Select a station or channel you wish to store in memory.**
2. **Touch [P#] (#:1-6) in which you want to store the station or channel for 2 seconds until a beep sounds.**

Selecting Operation

Preset select

You can list and select memorized station or channel.

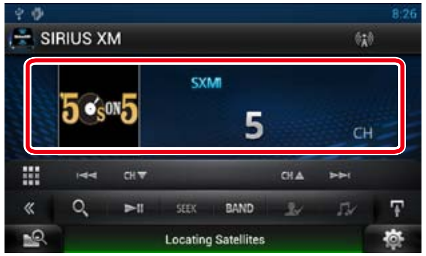
Selecting from the multi function menu

1. **Touch the desired number from P1 to P6.**

   The navigation system will tune to the selected station or channel.

Selecting from the preset list

1. **Touch illustrated area.**

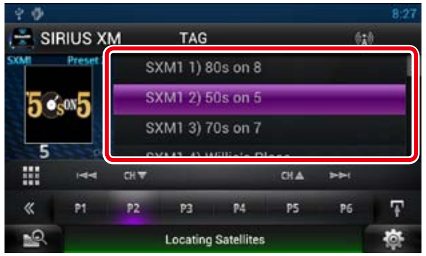


   List Control screen appears.

2. **Touch and hold [⤒].**

   Preset list appears.

3. **Select a station or channel from the list.**



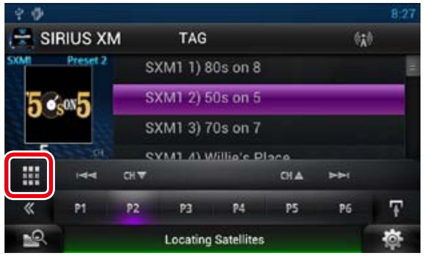
NOTE

- Touching [🔍] and then [Preset List] displays the preset channel list. You can also select your desired channel from the list.

Direct search

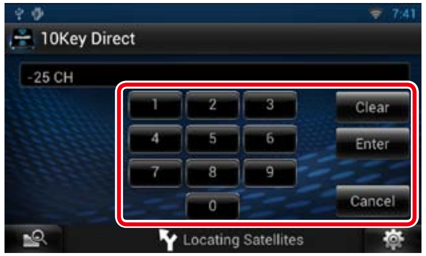
You can tune in by entering the desired frequency or channel number.

1 **Touch [▦].**


8:27
SIRIUS XM
TAG
SXM1
Preset 2
SXM1 1) 80s on 8
SXM1 2) 50s on 5
SXM1 3) 70s on 7
SXM1 4) Willie's Place
CH ▼
CH ▲
P1
P2
P3
P4
P5
P6
Locating Satellites

10Key Direct screen appears.

2 **Enter the frequency/ channel number and touch [Enter].**


7:41
10Key Direct
-25 CH
1
2
3
4
5
6
7
8
9
0
Clear
Enter
Cancel
Locating Satellites

NOTE

- To cancel the direct search, touch [Cancel].
- To clear the number you entered, touch [Clear].

Category/Channel search

You can specify the desired category and select a channel.

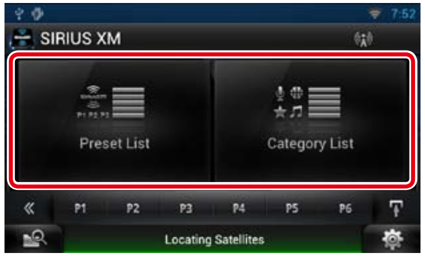
1 **Touch [«] in the control screen.**

The multi function menu appears.

2 **Touch [🔍] in the multi function menu.**

The list type screen appears.

3 **Touch [Preset List] or [Category List].**


7:52
SIRIUS XM
Preset List
Category List
P1
P2
P3
P4
P5
P6
Locating Satellites

The previously used category or channel list appears.

4 **Select the desired content from the list.**

NOTE

- All the channels in the selected category appear.
- Touching [All Channel] displays all the channels.
- Each time you touch [Info Change] in the channel list, switches the sequence of the list.
  Channel name, artist name, song title, category name, content info

Tune Start™

When tuning stations using the current 6 presets, songs will play from the beginning of each track if Tune Start is enabled.

See *Tune Start™ setup (P.109)*.

NOTE

- Tune Start may take a few minutes to operate after a power cycle or after changing to another preset band.

iTunes Tagging

You can tag your music using an iTunes Tagging enabled SiriusXM receiver.

The saved songs will then be stored in a playlist called "Tagged" in iTunes the next time you sync your iPod with your computer. "Tagged" songs can then be directly purchased and downloaded from the Apple iTunes Music Store by clicking them.

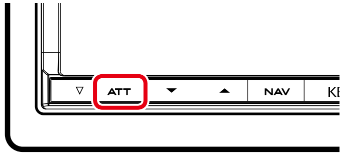
Registering a tag

NOTE

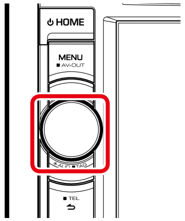
- "TAG" will be indicated on the display when song information can be registered.

1 **Press the button instructed in each diagram for 1 second during listening to the song from SiriusXM station.**

DNN990HD

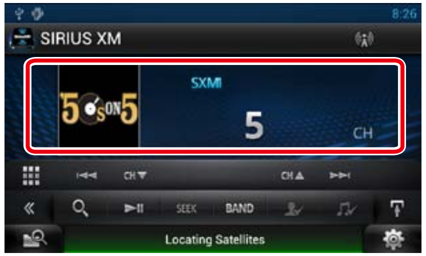


DNN770HD


HOME
MENU
TEL

Checking the memory usage

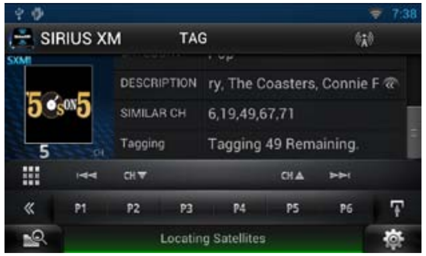
1 | Touch illustrated area.


SIRIUS XM
SXM
5
CH
SEEK
BAND
Locating Satellites

List control screen appears.

2 | Touch and hold [ ].
Information list appears.

3 | Scroll down the list and confirm "Tagging Information".


SIRIUS XM
TAG
P1
P2
P3
P4
P5
P6
Locating Satellites

DESCRIPTION ry, The Coasters, Connie F
SIMILAR CH 6,19,49,67,71
Tagging Tagging 49 Remaining.

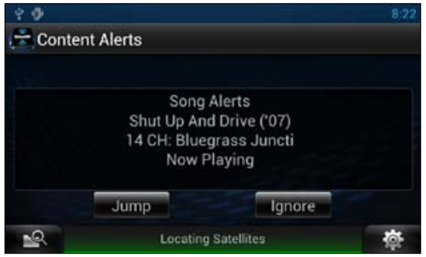
NOTE

- Up to 50 tags can be registered to this unit. When iPod is connected, the tag information registered to this unit is transferred to the connected iPod.

Song, Artist and Game Alerts

When a broadcast program related to the registered artist, song, team or city starts, a message appears to allow you to switch the current channel to the relevant channel.

1 | When the broadcast of the registered content starts, an Alert screen appears.

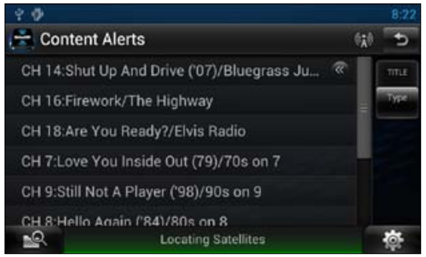

Content Alerts
Jump
Ignore
Locating Satellites

Song Alerts
Shut Up And Drive ('07)
14 CH: Bluegrass Juncti
Now Playing

Jump
Touch to display the Alert Content List screen.

Ignore
Touch to cancel the Content alert.

2 | Select content from the list.


Content Alerts
TITLE
Type
Locating Satellites

CH 14:Shut Up And Drive ('07)/Bluegrass Ju...
CH 16:Firework/The Highway
CH 18:Are You Ready?/Elvis Radio
CH 7:Love You Inside Out (79)/70s on 7
CH 9:Still Not A Player ('98)/90s on 9
CH 8:Hello Again ('84)/80s on 8

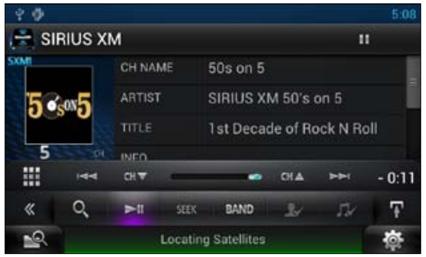
NOTE

- Each time you touched [Type], switches the sequence of the Content alert list as follows; Aritst alert, Song alert, Team alert.
- For how to register artists and songs and turn on/off the Team alert function, see *Multi function menu (P.100)*.
- For how to set up the Content alert function, see *SiriusXM Setup (P.106)*.

SiriusXM Replay™

You can replay up to the last 60 minutes broadcasting of current channel

1 | Simple Control screen or List Control screen.


SIRIUS XM
SXM
5
CH▼
CH▲
- 0:11
SEEK
BAND
Locating Satellites

CH NAME 50s on 5
ARTIST SIRIUS XM 50's on 5
TITLE 1st Decade of Rock N Roll

Multi function menu

[▶II]
Plays or pauses.

[BAND]
Switches the band.

[ ]
Listen to the on-air song (live).

[ ]
Displays a list of recorded data on a program basis.

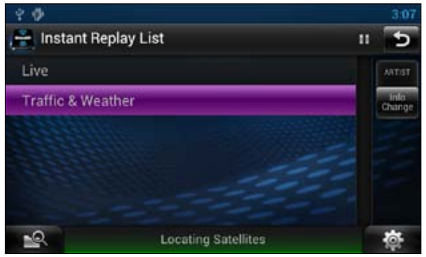
Sub function menu

[I◀◀] [▶▶I]
Searches the previous/next track. Fast forward/fast backward when keep on touching.

[CH▼] [CH▲]
Tunes in a station.

Replay time bar
Confirms the current location.

2 | Touch [ ] to display a program list.


Instant Replay List
ARTIST
Info Change
Locating Satellites

Live
Traffic & Weather

Program list
Touching this plays back the displayed program.

[Info Change]
Touching this allows you to switch among the Artist name, Song title, Category name, and Content info cyclically.

SiriusXM Setup

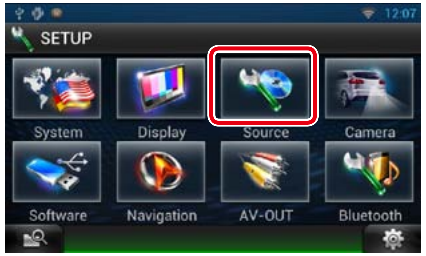
1 **Touch [⚙].**

Quick menu appears.

2 **Touch [SETUP].**

SETUP Menu screen appears.

3 **Touch [Source].**


12:07
SETUP
System
Display
Source
Camera
Software
Navigation
AV-OUT
Bluetooth

Source SETUP Menu screen appears.

4 **Touch [SIRIUS XM SETUP] in the list.**

SIRIUS XM SETUP screen appears.

See the following section for each setting.

- **Set up the parental code** *(P.106)*
- **Set up the parental lock** *(P.107)*
- **Set up the Mature parental lock** *(P.107)*
- **Set up the skip channel select** *(P.108)*
- **Set up the Content alerts** *(P.108)*
- **Set up the content for Content alerts** *(P.108)*
- **Select the city for Content alerts** *(P.109)*

Parental code

You can set a SiriusXM parental code.

1 **Touch [Change] of [Parental Code] in the SIRIUS XM SETUP screen.**

Parental Pass Check screen appears.

NOTE

- The code number is set to "0000" as default.

2 **Enter the current code number.**

Parental Pass 1st entering screen appears.

3 **Enter the new code number and touch [Enter].**

Parental Pass 2nd entering screen appears.

4 **Enter the same code number as you input in step 3 and touch [Enter].**

The code number is confirmed and SiriusXM parental code is now set.

Parental lock

You can select the channels to enable SiriusXM Parental Lock function.

1 **Touch [SET] of [Parental Lock Channel Select] in the SIRIUS XM SETUP screen.**

Parental Pass Check screen appears.

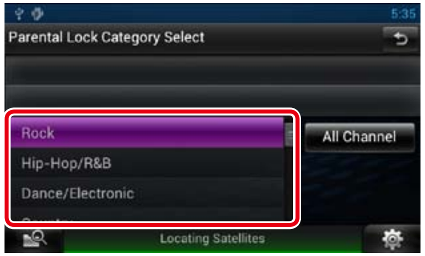
NOTE

- You need to complete ***Parental code (P.106)*** beforehand.
- To delete the parental lock channel setting, touch and hold [Clear] for 2 seconds, enter the Parental code number, then touch [Enter].

2 **Enter the same code number as you originally input in *Parental code (P.106)* and touch [Enter].**

Parental Lock Category Select screen appears.

3 **Touch the desired category from the list.**

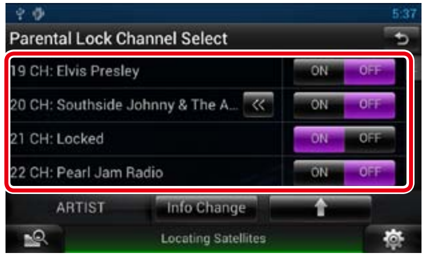

5:35
Parental Lock Category Select
Rock
Hip-Hop/R&B
Dance/Electronic
All Channel
Locating Satellites

Displays all the channels in the selected category.

NOTE

- Touch [All Channel] to display all the channels.

4 **Touch each channel list and set on or off.**


5:37
Parental Lock Channel Select
19 CH: Elvis Presley
ON OFF
20 CH: Southside Johnny & The A...
ON OFF
21 CH: Locked
ON OFF
22 CH: Pearl Jam Radio
ON OFF
ARTIST
Info Change
Locating Satellites

NOTE

- Each time you touched [Info Change], switches the sequence of the channel list as follows; Channel name, Artist name, Song title, Category name, Content information.
- Touch [⇧] to return to Parental Lock Category Select screen.
- Touch [⮌] to return to SIRIUS XM SETUP screen.

Mature setup

You can automatically limit children's contact with the channel for which Parental Lock is not turned on when the channel is deemed inappropriate.

1 **Touch [ON] or [OFF] of [Parental Lock Mature] in the SIRIUS XM SETUP screen.**

Turns the Mature on or off.

Default is "OFF".

NOTE

- When this function is turned on, Mature channels are indicated "forced on" in the function which is described in ***Parental lock (P.107)***.

Skip channel select

You can set the undesired channels to skip.

1 **Touch [SET] of [Skip Channel Select].**

Skip Category Select screen appears.

2 **Touch the desired category from the list.**

Displays all the channels in the selected category.

3 **Touch each channel and set ON or OFF.**

NOTE

- Operations in each list screen are same as *Parental lock (P.107)*.

Content alerts setup

You can turn on or off the Content alerts function.

1 **Touch [ON] or [OFF] of [Content alerts] in the SIRIUS XM SETUP screen.**

Turns the Content alerts on or off.

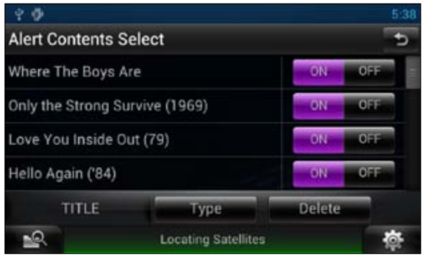
Default is "ON".

Content alerts Content Set

You can set a content for Content alerts.

1 **Touch [SET] of [Content alerts Content Set] in the SIRIUS XM SETUP screen.**

Artist list screen appears.



Where The Boys Are ON OFF
Only the Strong Survive (1969) ON OFF
Love You Inside Out (79) ON OFF
Hello Again ('84) ON OFF

NOTE

- To set all the content alerts off, touch and hold [Clear] for 2 seconds.

2 **Touch [Type] to select the screen of the content you want to set up.**

Touching this allows you to switch among the Artist list, Song list, and Team list cyclically.

3 **Touch each content list and set ON or OFF.**

NOTE

- Touch "Delete" to delete the currently selected content from the Artist list and Song list.
- Available teams were pre-registered in the Team list. Team(s) cannot be registered or deleted manually.

City select for Content alerts

You can select a city for which traffic information or weather forecast is to be received with the Content alerts function.

1 **Touch [◄] and [►] of [Traffic Weather Jump City Select] to select a city.**

Tune Start™ setup

1 **Touch [ON] or [OFF] of [Tune Start] in the SIRIUS XM SETUP screen.**

Turns the Tune start on or off.

Default is "ON".

Streaming Service Application

Streaming Video Application

You can play videos uploaded to YouTube.

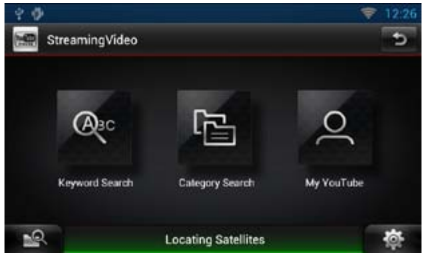
Preparation

- You need to connect to Internet using Wi-Fi. See *Wi-Fi Setup (P.32)*.

1 **Press the <HOME> button.**

2 **Touch [▦] in the Network contents panel.**

3 **Touch [Streaming Video].**


12:26
StreamingVideo
Keyword Search
Category Search
My YouTube
Locating Satellites

[Keyword Search]

Searches for videos associated by the keyword.

[Category Serach]

Searches for videos by the category.

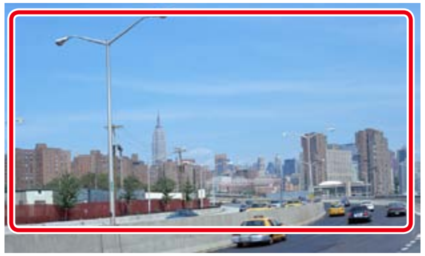
[My YouTube]

When you log in to YouTube, you can use the following:

My Favorites, My-Video, Registered Channels, Playlist

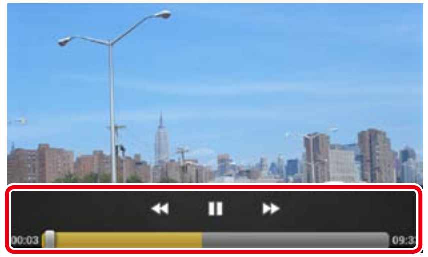
Video screen

1 **In the playback screen, touch illustrated area.**



Control screen appears.

2 **Perform desired operation as follows.**



[◀◀] [▶▶]

Fast forward or fast backward.

[II]/ [▶]

Plays or pauses.

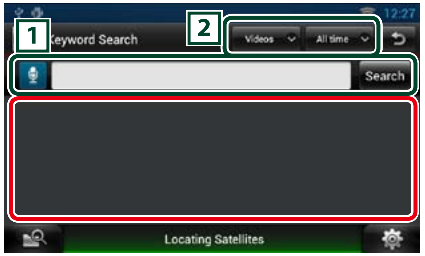
Status bar

For confirmation of current playing position. You can drag the circle left or right to change the playing position.

Keyword Search

1 **Touch [Keyword Search].**

2 **Perform desired operation as follows.**


1
2
12:27
Keyword Search
Videos
All time
Search
Locating Satellites

1

Enter a Keyword for search.

🎙 : Enter a keyword using the voice recognition function. When "Speak now" is displayed, pronounce the keyword.

[Search] : Begins search.

2

Specify the search range.

Menu

1 **Press the <MENU> button.**

[Sign in]

Log into the YouTube service.

Now you can use My YouTube.

[Sign out]

Logs out from the current account.

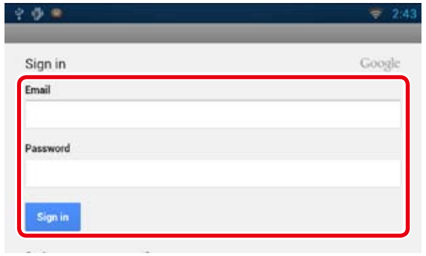
My YouTube

By logging into YouTube, you can use My Favorites and My-Videos.

1 **Press the <MENU> button.**

2 **Touch [Sign in].**

3 **Input the Email address and Password.**

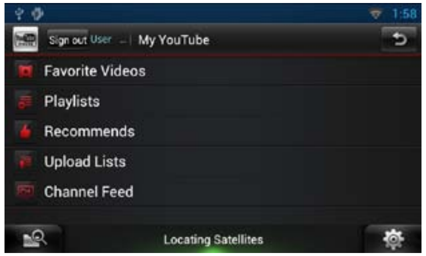

2:43
Sign in
Google
Email
Password
Sign in

4 **Touch [Sign in].**

5 **Touch [Grant access].**

6 **Touch [My YouTube].**

7 **Select a category.**


1:58
Sign out User
My YouTube
Favorite Videos
Playlists
Recommends
Upload Lists
Channel Feed
Locating Satellites

AUPEO! Application

You can listen to music on the online radio AUPEO!.

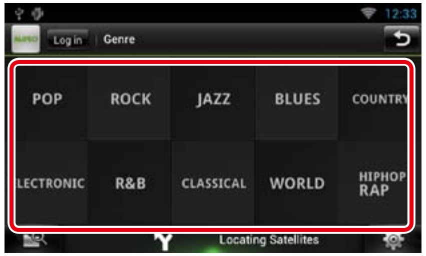
Preparation
- You need to connect to Internet using Wi-Fi. See *Wi-Fi Setup (P.32)*.

1 | **Press the <HOME> button.**

2 | **Touch [▦] in the Network contents panel.**

3 | **Touch [Aupeo].**

4 | **Select a genre.**

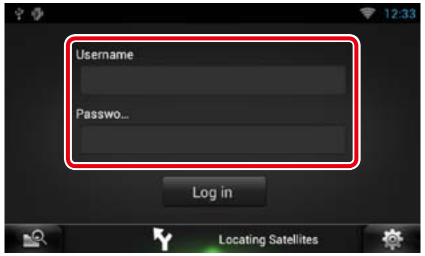

12:33
Log in
Genre
POP
ROCK
JAZZ
BLUES
COUNTRY
LECTRONIC
R&B
CLASSICAL
WORLD
HIPHOP RAP
Locating Satellites

Log in

By registering an account, you can listen to your favorite songs.

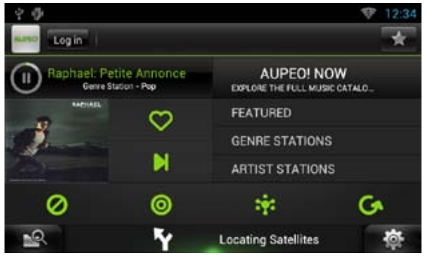
1 | **Touch [Log in].**

2 | **Input the User Name and Password.**


12:33
Username
Passwo...
Log in
Locating Satellites

3 | **Touch [Log in].**

Play screen


12:34
Log in
Raphael: Petite Annonce
Genre Station - Pop
AUPEO! NOW
EXPLORE THE FULL MUSIC CATALO...
FEATURED
GENRE STATIONS
ARTIST STATIONS
Locating Satellites

[⏸]

Plays or pauses.

[♡] (Love)

I like this song.

[⏭] (Skip)

Play the next song.

[⊘] (Ban)

I do not like this song.

[◎]

Select a sub genre.

[❋] (Mood)

Music matching your mood.

[↻]

Select a new genre.

[FEATURED]

Select a Featured Stations

[GENRE STATIONS]

Select a Genre Stations

[ARTIST STATIONS]

Create a station of your type by searching stations by the artist name.

[★] (Favorites)

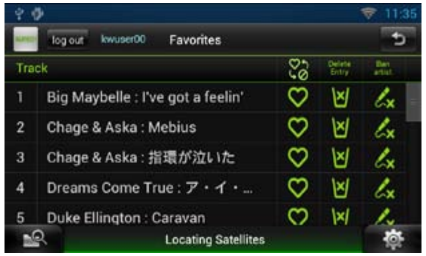
Edit the titles registered in Loves and Bans. You can use this button only when you have logged in to this service.

Editing Favorites

You can edit the titles registered in Loves and Bans.

Preparation
- You can only use this function when you have logged in this service.

1 | **Touch [★].**


11:35
log out
kwuser00
Favorites
Track
Delete Entry
Ban artist
Locating Satellites

1 Big Maybelle : I've got a feelin'
2 Chage & Aska : Mebius
3 Chage & Aska : 指環が泣いた
4 Dreams Come True : ア・イ・...
5 Duke Ellington : Caravan

[♡]/ [⊘]

Switches between Love and Ban.

[☒]

Deletes this title.

[✎]

Registers this artist as Ban.

Bluetooth Control

Using the Bluetooth function, various functions can be used: listening to the audio file, making/receiving a call.

About the Smartphone/cell-phone and Bluetooth audio player

This navigation system conforms to the following Bluetooth specifications:

Version

Bluetooth Ver4.0 Certified

Profile

Smartphone/cell-phone:

HFP (Hands Free Profile)

OPP (Object Push Profile)

PBAP (Phonebook Access Profile)

SPP (Serial Port Profile)

Audio player:

A2DP (Advanced Audio Distribution Profile)

AVRCP (Audio/Video Remote Control Profile)

NOTE

- For the smartphones/cell-phones verified for compatibility, access the following URL: http://www.kenwood.com/cs/ce/bt/.
- The navigation systems supporting the Bluetooth function have been certified for conformity with the Bluetooth Standard following the procedure prescribed by Bluetooth SIG.
  However, it may be impossible for such navigation systems to communicate with your smartphone/cell-phone depending on its type.

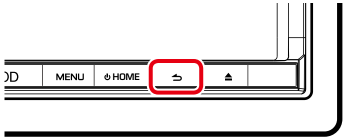
Registering and Connecting Bluetooth Unit

It is necessary to register the Bluetooth audio player or smartphone/cell-phone to this unit before using the Bluetooth function.

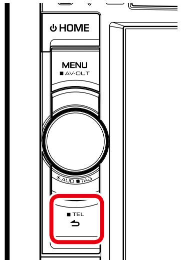
You can register up to 5 Bluetooth units.

1 Press and hold the < ⮌ > button.

DNN990HD

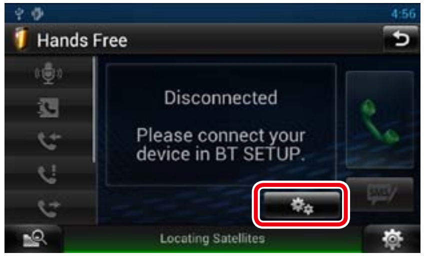


DNN770HD



Hands Free screen appears.

2 Touch [⚙].



Disconnected

Please connect your device in BT SETUP.

Bluetooth SETUP screen appears.

See the following section for each setting.

- **Registering the Bluetooth Unit** (P.115)
- **Connecting the Bluetooth unit** (P.116)

Registering the Bluetooth Unit

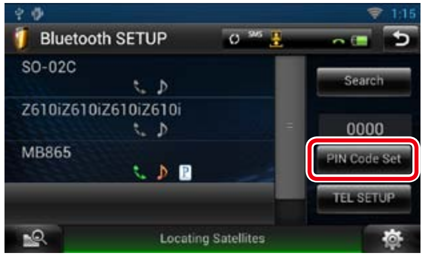
1 Touch [Search].

Searched Device List screen appears.

NOTE

- A new device cannot be registered if there are 5 registered Bluetooth units. Delete unnecessary registration. See *Connecting the Bluetooth unit (P.116)*.
- The Searched Device List screen cannot be displayed, when the receiving source is Pandora internet radio or Bluetooth Audio.
- This navigation system is compatible with the Apple Easy Pairing function. When an iPod touch or iPhone is connected to this navigation system using Dock Connector to USB Cable, an authentication dialog appears. Performing operation for authentication on this navigation system or iOS smartphone registers the smartphone as a Bluetooth device.

2 Touch [PIN Code Set].



PIN Code Set screen appears.

NOTE

- If the Bluetooth unit cannot be searched in step 1, you can search it again by touching [Search] in above screen.
- Touch [Cancel] to cancel searching for the Bluetooth unit.

3 Enter PIN code and touch [Enter].

The entered code is recognized and Searched Device List screen appears again.

NOTE

- If you want to cancel the registration, touch [Cancel].
- If you want to clear the entered number, touch [Clear].

4 Select the Bluetooth unit to register from the list.

The Connection Device List screen appears.

NOTE

- You can also register the Bluetooth unit such as smartphone by operating it. In this operation, entering the PIN code is necessary. See step 2 to 3.

Connecting the Bluetooth unit

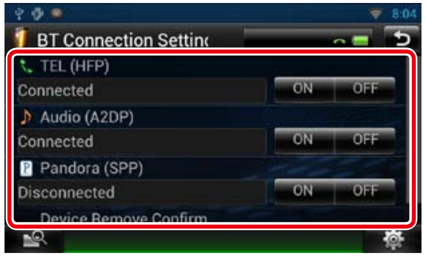
1 | **Touch the name of device to connect.**

Profile select screen appears.

NOTE

- If the icon of selected Bluetooth unit is lit, it indicates that the navigation system will use that Bluetooth unit.

2 | **Set each profile as follows.**



BT Connection Settin

TEL (HFP)
Connected ON OFF

Audio (A2DP)
Connected ON OFF

Pandora (SPP)
Disconnected ON OFF

Device Remove Confirm

TEL (HFP)

Means that the Bluetooth unit is a smartphone/cell-phone.

Audio (A2DP)

Means that the Bluetooth unit is an audio player or smartphone/cell-phone with audio player.

Pandora (SPP)

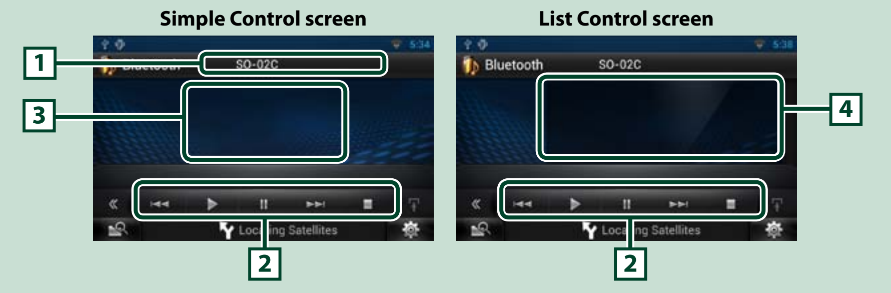
Means that the Bluetooth unit is a smartphone connected to Pandora internet radio.

NOTE

- TEL (HFP) setting for the previously connected Bluetooth phone is automatically OFF when you connect an another Bluetooth phone. However it is not automatically OFF for some Bluetooth phone and you cannot connect a newly connected Bluetooth phone even you set ON for TEL (HFP). In this case, set TEL (HFP) OFF manually for the previously connected Bluetooth phone.
- Touching [Remove] of [Device Remove Confirm] removes registration information. After you touch the key, a confirmation message appears. Follow the message and complete the operation.

Playing Bluetooth Audio Device

Bluetooth basic operation



Simple Control screen

List Control screen

1 Information display

Displays the name of the track information. If the information is not available, Bluetooth unit name is displayed.

2 Multi function menu

The functions of each key are as follows.

- [|◀◀] [▶▶|]: Searches the previous/next content.*
- [▶]: Plays.*
- [II]: Pauses.*
- [■]: Stops playback.

3 Control switching area

Touch to switch between the Simple Control and List Control screen.

4 File information

Displays the information of the current file.

*** These items appear only when the audio player which supports AVRCP profile is connected.**

NOTE

- If the operation keys do not appear, operate from the player.
- Depending on your smartphone/cell-phone or audio player, audio may be heard and controlled but text information may not appear.
- If the volume is too low, raise it on your smartphone/cell-phone or audio player.
- Speakers from which audio is output change depending on the Bluetooth setting "Bluetooth HF/Audio". The default is Front only. See *Hands-Free Setup (P.122)*.

Using Hands-Free Feature

You can make or answer a call with Hand-Free by connecting a smartphone/cell-phone with built-in Bluetooth connected to this navigation system.

Downloading the phonebook

If you want to use your phonebook data, download the data from your smartphone/cell-phone to this navigation system in advance.

1 Operate your smartphone/cell-phone to send the phonebook data to this navigation system.

2 Operate the cell-phone to start the hands-free connection.

NOTE

- If your cell-phone supports auto-download of phonebook but not downloaded automatically, follow the procedure above to download manually.
- See the instruction manual of your cell-phone for the operation.
- Up to 600 phone numbers can be registered for each registered cell-phone.
- Up to 32 digits can be registered for each phone number along with up to 50 characters representing a name. (50 is the number of alphabetical characters. Fewer characters can be input depending on the type of characters.)
- Depending on the type of your cell-phone, the following restrictions are placed;
  - –The phonebook data cannot be downloaded normally.
  - –Characters in the phonebook are garbled.
- To cancel downloading the phonebook data, operate the cell-phone.

Making a call

1 Press and hold the < ⮌ > button.

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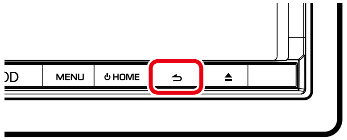
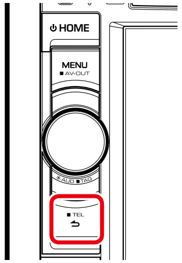
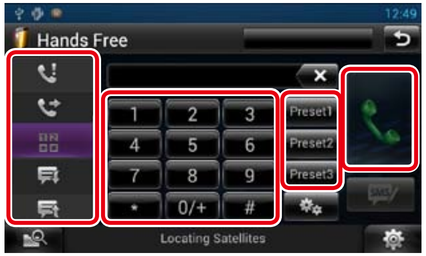


DNN770HD



Hands Free screen appears.

2 Select a dialing method.



See the following table for each method.

Call by entering a phone number

①Touch [▦].

②Enter a phone number with number keys.

③Touch [☎].

Call using call records

①Touch [☎] (Incoming Calls), [☎] (Outgoing Calls), or [☎] (Missed Calls).

②Select the phone number from the list.

③Touch [☎].

Call using the phonebook

①Touch [☎].

②Select the name from the list.*1*2

③Select the number from the list.

④Touch [☎].

Call using the preset number

①Touch [Preset #] to start calling the corresponding phone number.

Voice Recognition

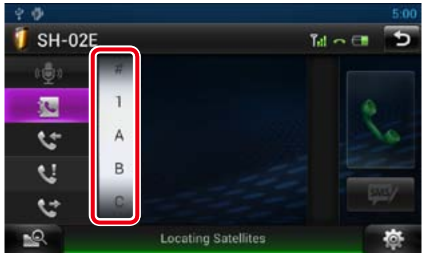
You can access the voice recognition function of the smartphone/cell-phone connected to this navigation system.

You can search a phone number in the smartphone/cell-phone phonebook by pronouncing a name. (The functionality depends on the cell-phone.)

①Touch [🎤] to Voice Recognition screen appears.

②Pronounce a name.

***1 You can sort the list to begin with touched character.**



- **Characters with no corresponding name will not appear.**
- **During search, a non-accent character such as "u" is searched for instead of an accent character such as "ü".**

***2 You can set the list to arrange in the order of last name or first name. For details, see *Hands-Free Setup (P.122)*.**

NOTE

- While your car is moving, some functions are disabled for safety reasons. The keys associated with the disabled functions become ineffective if touched.
- The status icons such as battery and antenna displayed may differ from those displayed on the cell-phone.
- Setting the cell-phone in the private mode can disable the hands-free function.

Voice Recognition

You can access the voice recognition function of the smartphone/cell-phone connected to this navigation system.

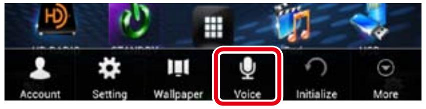
You can search a phone number in the smartphone/cell-phone phonebook by pronouncing a name. (The functionality depends on the cell-phone.)

1 Press the <MENU> button.

NOTE

- This function is not displayed in the menu when you are operating an application. Press the <HOME> button to use this function.

2 Touch [Voice].

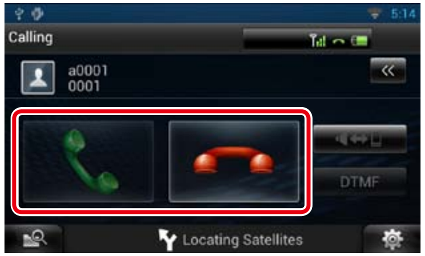

Account
Setting
Wallpaper
Voice
Initialize
More

Voice Recognition screen appears.

3 Pronounce a name.

Answering a call

1 Touch [☎] to answer a call or [☎] to reject a call.


Calling
a0001
0001
DTMF
Locating Satellites
5:14

NOTE

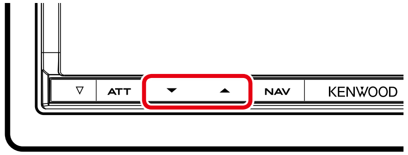
- While monitoring the camera view, this screen does not appear even if a call comes in. To display this screen, press the <TEL> button or return the shift knob of car to the driver position.

Operation during a call

Adjust the receiver volume

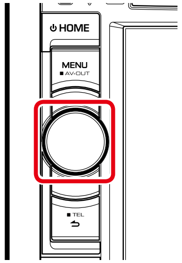
DNN990HD

Press the <▼> or <▲> button.


ATT
NAV
KENWOOD

DNN770HD

Turn the volume knob.


HOME
MENU
AV-OUT
TEL

Switch the voice output

Touch [🔈↔] to switch the voice output between phone and speaker.

Sending DTMF tone signal

Touch [DTMF] to display the tone input screen.

You can send tones by touching desired keys on the screen.

Call waiting

You can answer a second call while talking with the first caller by placing the first call on hold and

switching to the second call. You can switch back and forth between first and second caller as well.

To answer the second call

Touch [☎]. The first call is placed on hold and answers the second waiting call.

To switch back and forth between the first and second caller

Touch [☎] again.

Each time you touch [☎], the caller is switched.

To terminate the first call

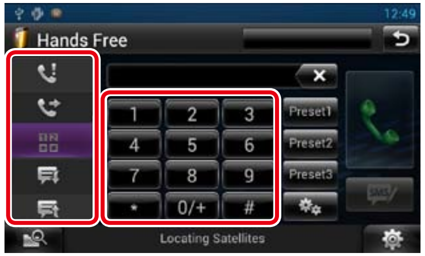
Touch [☎].

The caller switches to the second caller.

Phone number preset

You can register frequently used phone numbers to this unit.

1 Enter the number you want to register in Hands Free screen.


Hands Free
12:49
1
2
3
4
5
6
7
8
9
*
0/+
#
Preset1
Preset2
Preset3
Locating Satellites

2 Touch [Preset 1], [Preset 2], or [Preset 3] for 2 seconds in the Hands Free screen.

Hands-Free Setup

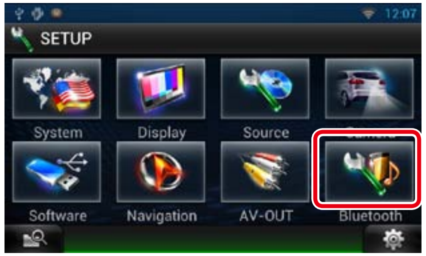
You can perform various setup about hands-free function.

1 | Touch [⚙] on any screen.

2 | Touch [SETUP].

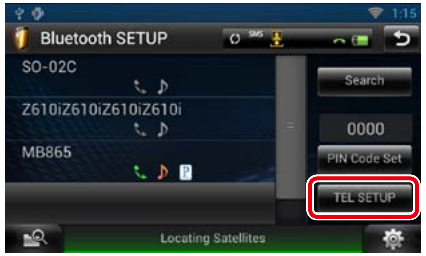
SETUP Menu screen appears.

3 | Touch [Bluetooth].


12:07
SETUP
System
Display
Source
Software
Navigation
AV-OUT
Bluetooth

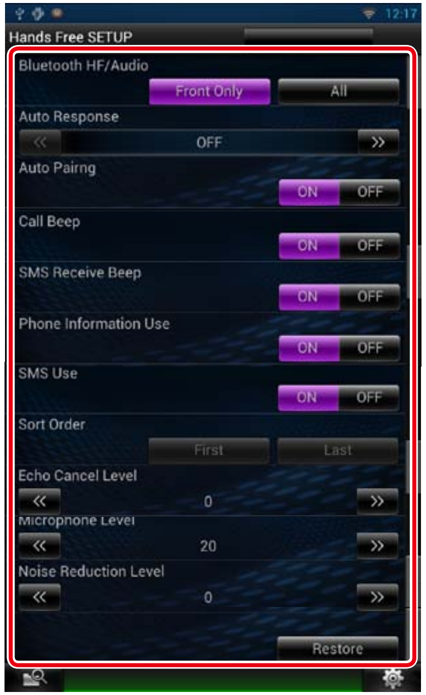
Bluetooth SETUP screen appears.

4 | Touch [TEL SETUP].


1:15
Bluetooth SETUP
SO-02C
Z610iZ610iZ610iZ610i
MB865
Search
0000
PIN Code Set
TEL SETUP
Locating Satellites

Hands-free SETUP screen appears.

5 | Set each item as follows.


12:17
Hands Free SETUP
Bluetooth HF/Audio
Front Only
All
Auto Response
OFF
Auto Pairng
ON
OFF
Call Beep
ON
OFF
SMS Receive Beep
ON
OFF
Phone Information Use
ON
OFF
SMS Use
ON
OFF
Sort Order
First
Last
Echo Cancel Level
0
Micropnone Level
20
Noise Reduction Level
0
Restore

Bluetooth HF/Audio

Select the speakers to output the sound from cell-phone (such as phone call voice and ringing tone) and Bluetooth audio player.

Front Only (Default): Outputs from the front speakers.

All: Outputs from all speakers.

Auto Response*[1]

Set the ringing time interval until the system automatically answers a call.

OFF (Default): Automatic response is not available.

0-99: Set ringing time interval (second).

Auto Pairing

When set to "ON", the Apple Auto Pairing function is turned on to automatically register the iPod touch or iPhone connected to this unit.

ON (Default): Uses Apple Auto Pairing function.

OFF: Not uses Apple Auto Pairing function.

Call Beep

Select whether or not to beep upon receiving a call.

ON (Default): Beeps.

OFF: Not beeps.

SMS Receive Beep

Select whether or not to beep upon receiving SMS message.

ON (Default): Beeps.

OFF: Not beeps.

Phone Information Use

Set whether to download phonebook for outgoing, incoming and missed calls list.

ON (Default): Yes.

OFF: No.

SMS Use

Select whether to use SMS.

ON (Default): Uses SMS.

OFF: Not uses SMS.

Sort Order

Set how to arrange the cell-phone phonebook.

First: Arranges in the order of first name.

Last (Default): Arranges in the order of last name.

Echo Cancel Level

Adjust the level of echo cancellation. Default is "0".

Microphone Level

Adjust the sensitivity of the telephone microphone. Default is "20".

Noise Reduction Level

Reduces the noises generated by surrounding environment without changing the microphone volume. Use this setting when the voice of caller is not clear. Default is "0".

[Restore]

Resets the settings to the default settings.

[1] Either the time interval for automatic answer set on this navigation system or the time interval set on your smartphone/ cell-phone, whichever is shorter takes effect.

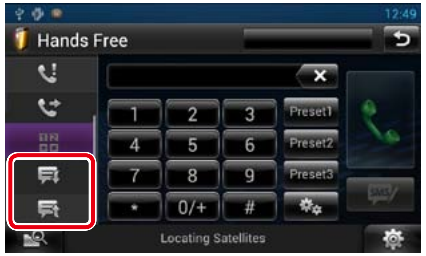
SMS (Short Message Service)

You can send or receive a short message using SMS function on this navigation system.

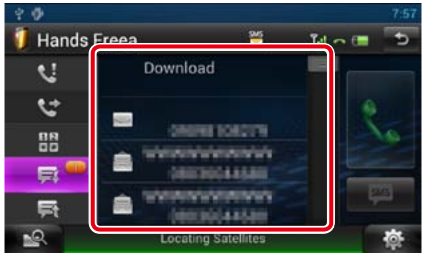
1 **Press and hold the < ⮌ > button.**

Hands Free screen appears.

2 **Touch [✉] or [✉] in the Hands Free screen.**


12:49
Hands Free
1
2
3
4
5
6
7
8
9
*
0/+
#
Preset1
Preset2
Preset3
Locating Satellites

3 **Select a SMS message to read from the Received or Sent SMS messages list.**


7:57
Hands Freea
Download
Locating Satellites

The selected SMS message appears.

[✉]

Indicates the number of unread SMS messages.

[✉]

Indicates the number of read SMS messages.

NOTE

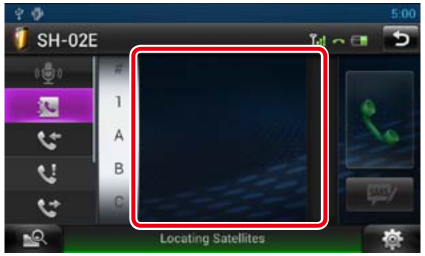
- When there is an unread SMS message(s), unread SMS message is indicated in [✉] (number)..

Creating an SMS (Short Message Service)

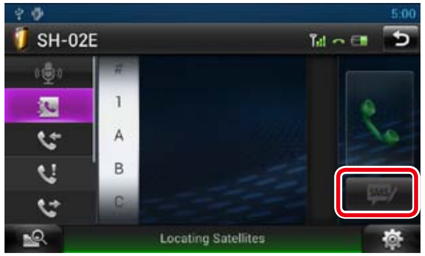
1 **Touch [☎], [☎], [☎], [☎], [✉], or [✉] in the Hands Free screen.**

The phone numbers list appears.

2 **From the phone numbers list, select a phone number to send a SMS.**

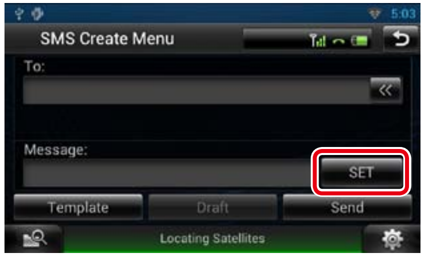

5:00
SH-02E
#
1
A
B
C
Locating Satellites

3 **Touch [SMS].**


5:00
SH-02E
#
1
A
B
C
SMS
Locating Satellites

SMS Create Menu screen appears.

4 **Touch [SET] of [Message] in the SMS Create Menu screen.**


5:03
SMS Create Menu
To:
Message:
SET
Template
Draft
Send
Locating Satellites

Create SMS Message screen appears.

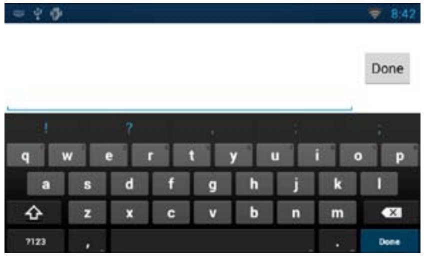
[Template]

Displays the template list.

[Draft]

Displays the newest draft message. This key becomes active when any message has been created after turning power on.

5 **Enter a message using keys and touch [Done].**


8:42
Done
q w e r t y u i o p
a s d f g h j k l
z x c v b n m
?123
Done

6 **Touch [Send].**

The message is sent.

NOTE

- You can create a SMS message by directly entering a phone number and a short message on the Hands Free screen.
- [Delete] appears only when a draft message is being edited. Touching [Delete] deletes the message. After you touch [Delete], a confirmation message appears. Follow the message and complete the operation.

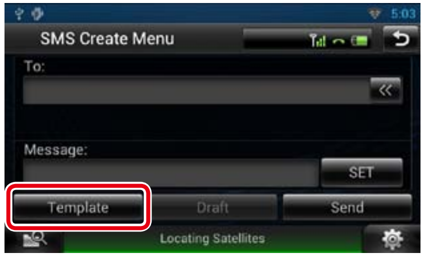
Using templates

You can create a message easily by selecting the desired sentence from the template list.

1 **Touch [SMS] in the Hands Free screen.**

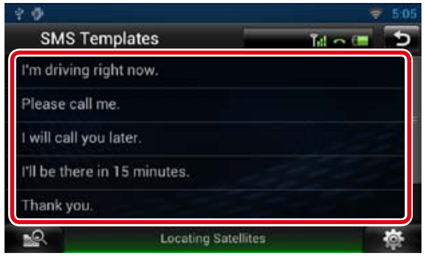
SMS Create Menu screen appears.

2 **Touch [Template].**


5:03
SMS Create Menu
To:
Message:
SET
Template
Draft
Send
Locating Satellites

Template list screen appears.

3 **Touch the desired template.**


5:05
SMS Templates
Locating Satellites

I'm driving right now.
Please call me.
I will call you later.
I'll be there in 15 minutes.
Thank you.

Selected template is entered.

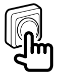
Voice Control (DNN990HD)

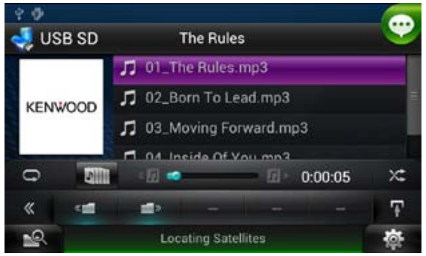
The navigation system is equipped with Advanced Voice Recognition function which allows you to operate it with your voice.
The supported languages are US English, UK English, French, German, Dutch, Italian, and Spanish. For information on the voice commands, refer to <Voice command table> (separate volume).

NOTE
- ASR on the Language Setting screen should be set to "Enabled". See *Language setup (P.130)*.

Voice Control

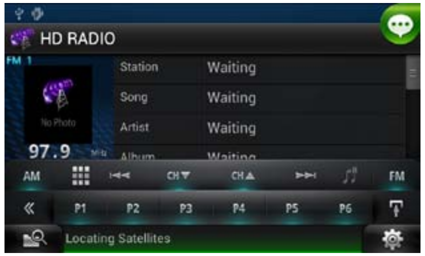
1 Press the Push-To-Talk switch to enter the Voice control mode.




USB SD
The Rules
KENWOOD
01_The Rules.mp3
02_Born To Lead.mp3
03_Moving Forward.mp3
04_Inside Of You.mp3
0:00:05
Locating Satellites

The buttons enclosed in a green square support the voice control.

2 Speak the command. (Ex: Speak "HD RADIO".)


HD RADIO
FM 1
Station Waiting
Song Waiting
Artist Waiting
Album Waiting
No Photo
97.9
AM
CH▼
CH▲
FM
P1
P2
P3
P4
P5
P6
Locating Satellites

The screen has changed to the HD Radio Control screen.
You will hear a beep again.

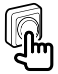
3 Repeat the same procedure as step 2.
For information on the voice commands, refer to <Voice command table> (separate volume).

4 Press the Push-To-Talk switch to end the voice control mode.

Displaying Voice Commands

To display the list of operable voice commands.

1 Press and hold the Push-To-Talk switch.



The list of operable voice commands appears. Pronounce a command.

NOTE
- To cancel the commands list display, press Push-To-Talk switch or touch the screen.

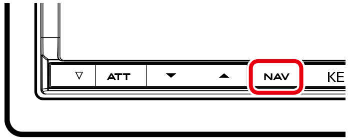
Camera Control (DNN990HD)

When a CMOS-310/CMOS-300 (optional accessory) is connected, the camera can be controlled from this navigation system.

Camera Control

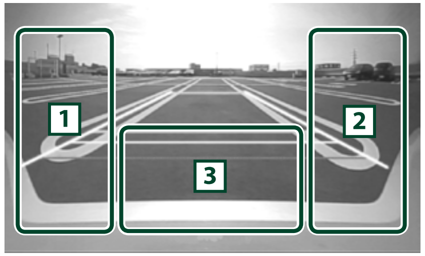
You can adjust the camera angle of the camera system and display of the guideline.

1 Press the <NAV> button for 1 second.



Camera view screen appears.

2 Adjust each item as follows.



1 Guideline
Pressing each time turns on or off the guideline display alternately.

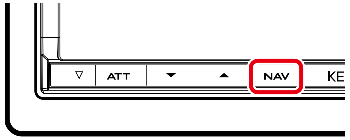
2 ANGLE
Pressing each time changes camera angles in the following order:
Super wide view/ Wide view/ Overhead view/ Wide view + Top view/ Corner view

3
Clearing the Camera View display.

Switching the View Camera

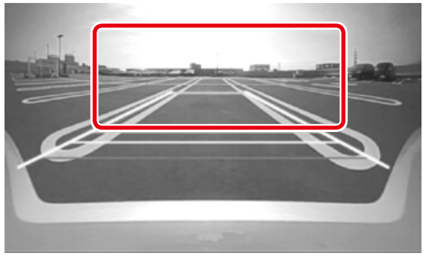
Switching between the front view camera and the rear view camera.

1 Press the <NAV> button for 1 second.



Camera view screen appears.

2 Touch illustrated area during Camera view screen.



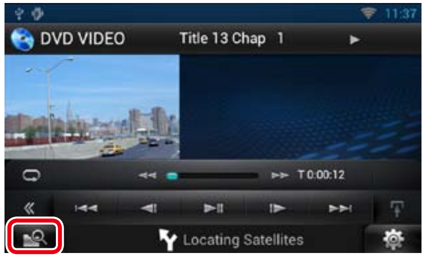
Switches between the front view camera and rear view camera each time you touch the illustrated area.

Setting Up

Monitor Screen Setup

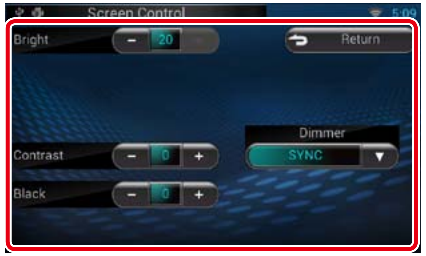
You can adjust image quality of iPod video, picture file, menu screen, etc.

1 | Touch and hold the lower left area of any screen.


DVD VIDEO
Title 13 Chap 1
11:37
T 0:00:12
Locating Satellites

Screen Control screen appears.

2 | Adjust each item as follows.


Screen Control
5:09
Bright
20
Return
Dimmer
SYNC
Contrast
0
Black
0

Bright / Tint / Color / Contrast / Black / Sharpness

Adjusts each item.

Dimmer

Select dimmer mode.

ON: The display and buttons dim.

OFF: The display and buttons do not dim.

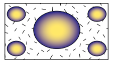
SYNC (Default): Turns the dimmer function on or off when the vehicle light control switch is turned on or off.

NAV-SYNC: Turns the dimmer function on or off according to the Navigation Day/Night display setting.

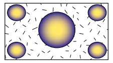
Mode (Playback screen only)

Select screen mode.

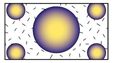
Full: Full picture mode



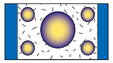
Just: Justify picture mode



Zoom: Zoom picture mode



Normal: Normal picture mode



NOTE

- Adjusting items are different depending on the current source.
- You can perform this function only when you have applied the parking brake.
- The image quality can be set for each source.

System Setup

NOTE

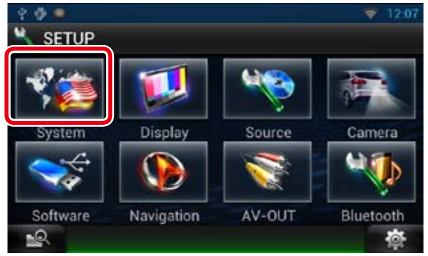
- Each operation in this section can be started from the multi function menu.

1 | Touch [⚙] on any screen.

Quick Menu screen appears.

2 | Touch [SETUP].

3 | Touch [System].


12:07
SETUP
System
Display
Source
Camera
Software
Navigation
AV-OUT
Bluetooth

System screen appears.

See the following section for each setting.

- **Set up the user interface** *(P.129)*
- **Adjust touch panel** *(P.130)*
- **Set up security** *(P.130)*
- **Set up external switch** *(P.131)*
- **Set up memory** *(P.131)*

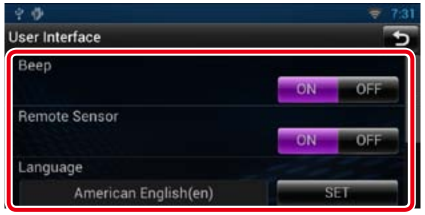
User interface

You can setup user interface parameters.

1 | Touch [User Interface] in the list.

User Interface screen appears.

2 | Set each item as follows.


7:31
User Interface
Beep
ON
OFF
Remote Sensor
ON
OFF
Language
American English(en)
SET

Beep

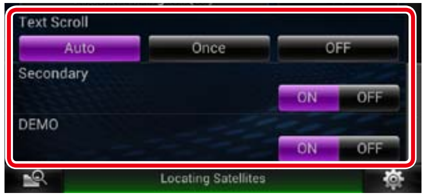
Turns the key touch tone on or off.
Default is "ON".

Remote Sensor

This set item is not available.

Language

Select the language used for the control screen and setting items. See *Language setup (P.130)*.


Text Scroll
Auto
Once
OFF
Secondary
ON
OFF
DEMO
ON
OFF
Locating Satellites

Text Scroll

Allows scrolling of text display on the source control screen. Select from "Auto"/"Once"/"OFF".

Auto (Default): Scrolls the text automatically.

Once: Allows you to scroll the text only once automatically when updated.

OFF: Does not scroll the text automatically.

Secondary

Set whether to display the navigation information in the audio screen or vice versa.
Default is "ON".

Demo mode

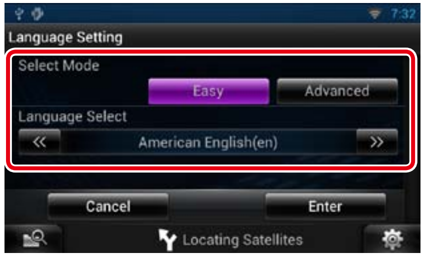
Set the demonstration mode. Default is "ON".

Language setup

1. **Touch [SET] of [Language] in the User Interface screen.**

   Language Setting screen appears.

2. **Set each item as follows.**


7:32
Language Setting
Select Mode
Easy
Advanced
Language Select
American English(en)
Cancel
Enter
Locating Satellites

Select Mode

Select the mode to select a language.

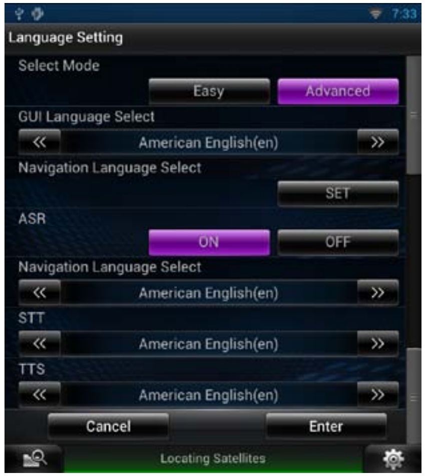
Easy (Default): Selects a language easily.

Advanced: Allows you to select languages for respective items.*

Language Select

Select a language.

*** If you select [Advanced] for Select Mode, the following screen appears.**


7:33
Language Setting
Select Mode
Easy
Advanced
GUI Language Select
American English(en)
Navigation Language Select
SET
ASR
ON
OFF
Navigation Language Select
American English(en)
STT
American English(en)
TTS
American English(en)
Cancel
Enter
Locating Satellites

GUI Language Select:

Select the language used for the GUI and input methods.

ASR:

Select the language used for voice control function.

Navigation Language Select:

Select the language used for navigation.

STT:

Select the language used for Speech to Text (STT).

TTS:

Select the language used for Text to Speech (TTS).

3. **Touch [Enter].**

NOTE

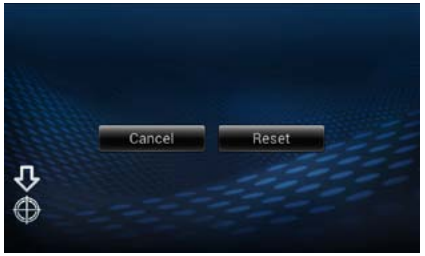
- To cancel the language setup, touch [Cancel].

Touch panel adjustment

1. **Touch [Touch] in the System Menu screen.**

   Touch Panel Adjustment screen appears.

2. **Follow the instruction on the screen and touch the center of each ⊕.**


Cancel
Reset

NOTE

- To cancel the touch panel adjustment, touch [Cancel].
- To reset to the initial status, touch [Reset].

Security setup

A red indicator will blink on the unit after the ACC is set to OFF, warning potential thieves.

If turned to "ON" (default), the security indicator on the front panel flashes when the vehicle ignition is off.

1. **Touch [Security] in the System Menu screen.**

   Security screen appears.

2. **Touch [ON] or [OFF] of [SI].**

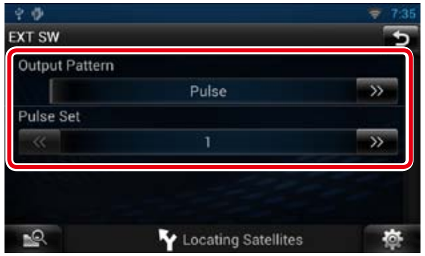
EXT SW setup (DNN990HD)

Set up the external switch power mode.

1. **Touch [EXT SW] in the System Menu screen.**

   EXT SW screen appears.

2. **Set each item as follows.**


7:35
EXT SW
Output Pattern
Pulse
Pulse Set
1
Locating Satellites

Output Pattern

Set the power signal output mode among "Pulse"/"Level". Default is "Pulse".

You can set to turn output on/off each time the button on the EXT SW screen is touched. See *External Device Control (P.137)*.

Pulse Set

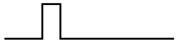
Set the pulse signal output time.

Outputs 500ms when "1" is set.

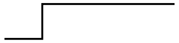
Increases by 200ms with each step. Up to 100 steps can be set.

NOTE

- You can enter characters only after you have applied the parking brake.
- "Pulse": Generates a single power signal pulse.



- "Level": Continues output of high power signal.



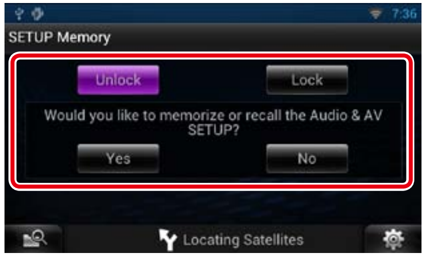
Setup memory

Audio Control, AV-IN SETUP, Camera, and Audio SETUP settings can be memorized. The memorized settings can be recalled at any time. For example, even when the settings are cleared due to replacement of the battery, the settings can be restored.

1. **Touch [SETUP Memory] in the System Menu screen.**

   SETUP Memory screen appears.

2. **Follow the instruction on the screen.**


7:36
SETUP Memory
Unlock
Lock
Yes
No
Locating Satellites

Would you like to memorize or recall the Audio & AV SETUP?

[Lock] / [Unlock]*

Locks or unlocks the AV-IN SETUP, and Audio SETUP settings.

Yes

Memorizes or recalls the settings.

No

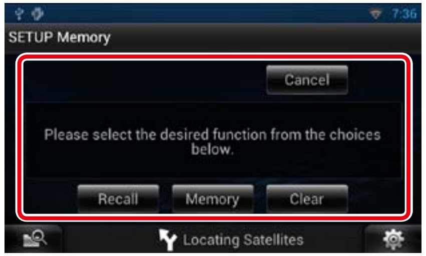
Cancels the function or memorization.

The SETUP Menu screen appears again.

*** When [Lock] is selected, you cannot change the AV-IN SETUP, and Audio SETUP settings. Also, the locked key mark is displayed under each setting icon in the setup menu.**

Continued

3 | **Follow the instruction on the screen.**


SETUP Memory
7:36
Cancel
Recall
Memory
Clear
Locating Satellites

Please select the desired function from the choices below.

Recall

Recalls the memorized settings.

Memory

Memorizes the current settings.

Clear

Clears the currently memorized settings.

Cancel

Cancels memorization/recalling of settings.

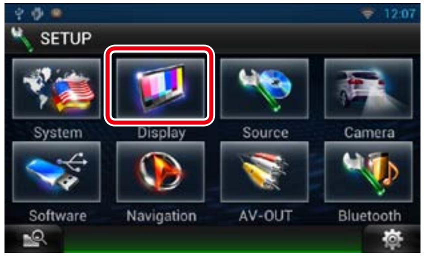
Display Setup

1 | **Touch [⚙] on any screen.**

2 | **Touch [SETUP].**

SETUP Menu screen appears.

3 | **Touch [Display].**


SETUP
12:07
System
Display
Source
Camera
Software
Navigation
AV-OUT
Bluetooth

Display screen appears.

See the following section for each setting.

- **Control angle** *(P.132)*
- **Adjust panel color** *(P.133)*

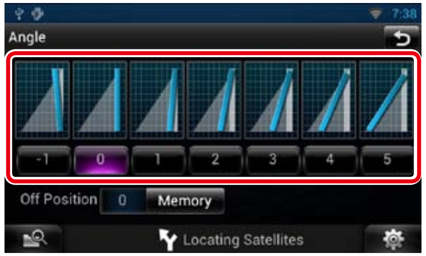
Monitor angle control (DNN990HD)

You can adjust the angle of the monitor.

1 | **Touch [Angle] in the Display Menu screen.**

Angle setup screen appears.

2 | **Select a number below an angle that will best suit your monitor viewing.**


Angle
7:38
-1
0
1
2
3
4
5
Off Position
0
Memory
Locating Satellites

Default is “0”.

NOTE

- You can store the current monitor angle as the angle during power off. Touch [Memory] when the desired angle is selected.

Panel color coordinate

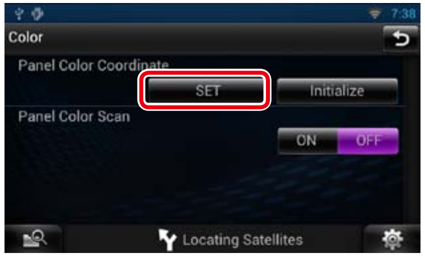
You can set the button illumination color.

The selectable items differ depending on the unit.

1 | **Touch [Color] in the Display Menu screen.**

Color screen appears.

2 | **Touch [SET] of [Panel Color Coordinate].**

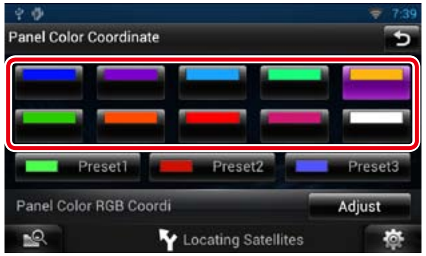

Color
7:38
Panel Color Coordinate
SET
Initialize
Panel Color Scan
ON
OFF
Locating Satellites

Panel Color Coordinate screen appears.

NOTE

- You can touch [SET] or [Initialize] when [Panel Color Scan] is set to off.
- Touch [Initialize] to reset the settings to the default settings.

3 | **Touch the desired color.**


Panel Color Coordinate
7:39
Preset1
Preset2
Preset3
Panel Color RGB Coordi
Adjust
Locating Satellites

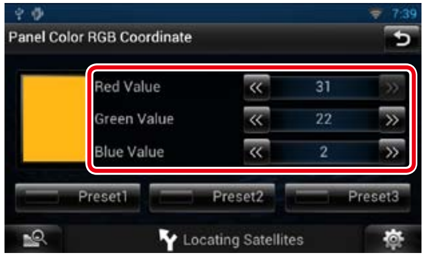
Registering original color

You can register your original color.

1 | **Touch [Adjust] in the Panel Color Coordinate screen.**

Panel Color RGB Coordinate screen appears.

2 | **Use [◄] and [►] to adjust each color value.**


Panel Color RGB Coordinate
7:39
Red Value
31
Green Value
22
Blue Value
2
Preset1
Preset2
Preset3
Locating Satellites

3 | **Touch the desired preset key for 2 seconds.**

Panel color scan

You can set the panel color to continuously scan through the color spectrum.

1 | **Touch [ON] of [Panel Color Scan] in the Color screen.**

Panel Color Scan is set to on.

Navigation Setup

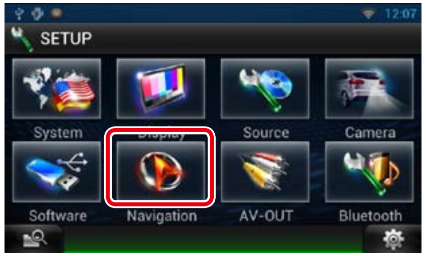
You can set navigation parameters.

1 | Touch [⚙] on any screen.

2 | Touch [SETUP].

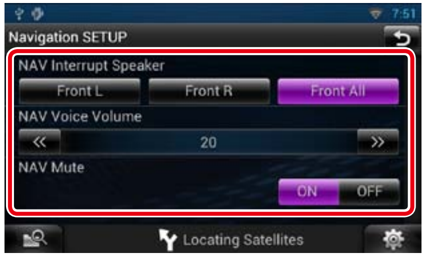
SETUP Menu screen appears.

3 | Touch [Navigation].



Navigation SETUP screen appears.

4 | Set each item as follows.



NAV Interrupt Speaker: Front L / Front R / Front All
NAV Voice Volume: 20
NAV Mute: ON / OFF

NAV Interrupt Speaker

Select speaker(s) used for voice guidance of the navigation system.

Front L: Uses the front left side speaker for voice guidance.

Front R: Uses the front right side speaker for voice guidance.

Front All (Default): Uses both front speakers for voice guidance.

NAV Voice Volume

Adjust the volume for voice guidance of the navigation system. Default is "20".

NAV Mute

Mutes the volume of rear speakers during voice guidance of the navigation system. Default is "ON".

Camera Setup

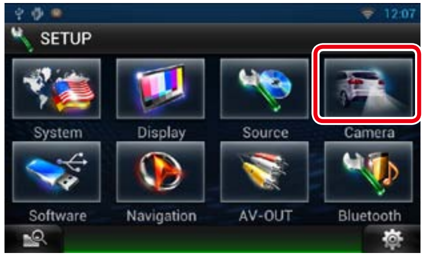
You can set camera parameters.

1 | Touch [⚙] on any screen.

2 | Touch [SETUP].

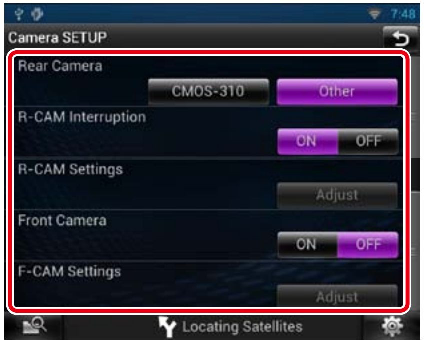
SETUP Menu screen appears.

3 | Touch [Camera].



Camera SETUP screen appears.

4 | Set each item as follows.



Rear Camera: CMOS-310 / Other
R-CAM Interruption: ON / OFF
R-CAM Settings: Adjust
Front Camera: ON / OFF
F-CAM Settings: Adjust

Rear Camera*1*4

Select the type of rear camera to use.

CMOS-310: When the CMOS-310/CMOS-300 series with ID 1 set is connected.

Other (Default): When the other camera is connected.

R-CAM Interruption

Set a method for switching the display. Setting values are ON and OFF.

ON: Switches to the rear view camera video display when shifting to reverse or pressing the <NAV> button for 1 second.

OFF (Default): Switches to the rear view camera video display when pressing the <NAV> button for 1 second.

R-CAM Settings*2*4

Adjust the CMOS-310/CMOS-300 series with ID 1 set. For details, see the instruction manual of your camera.

Front Camera*1*4

Turn this setting on when the CMOS-310/CMOS-300 series with ID 2 set is connected. Setting values are ON and OFF. Default is "OFF".

F-CAM Settings*3*4

Adjust the CMOS-310/CMOS-300 series with ID 2 set. For details, see the instruction manual of your camera.

***1 These settings become settable only when the parking brake is on.**

***2 This setting becomes settable only when the parking brake is on and the CMOS-310/CMOS-300 series is selected.**

***3 This setting becomes settable only when the parking brake is on and "Front Camera" is set to [ON].**

***4 DNN990HD only.**

Software Information

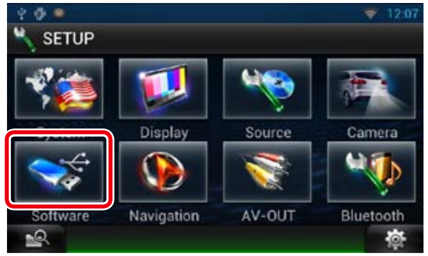
Check the software version of this unit.

1 | Touch [⚙] on any screen.

2 | Touch [SETUP].

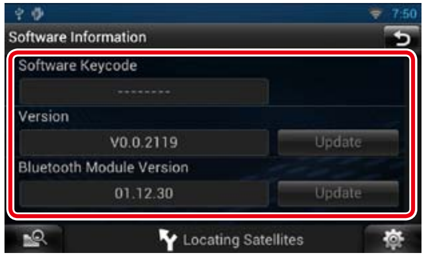
SETUP Menu screen appears.

3 | Touch [Software].


12:07
SETUP
System
Display
Source
Camera
Software
Navigation
AV-OUT
Bluetooth

Software Information screen appears.

4 | Confirm the software version. Touch [Update] as necessary.


7:50
Software Information
Update
Update
Locating Satellites

Software Keycode: --------

Version: V0.0.2119

Bluetooth Module Version: 01.12.30

NOTE

- For how to update the software, see the relevant update procedure manual which comes with the software.

AV Input Setup

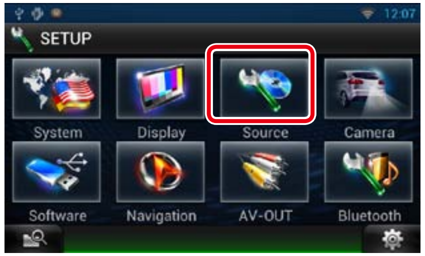
You can set AV input parameters.

1 | Touch [⚙] on any screen.

2 | Touch [SETUP].

SETUP Menu screen appears.

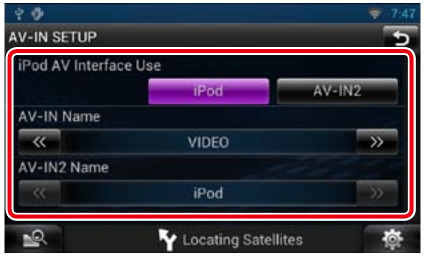
3 | Touch [Source].


12:07
SETUP
System
Display
Source
Camera
Software
Navigation
AV-OUT
Bluetooth

4 | Touch [AV-IN SETUP] in the list.

AV-IN SETUP screen appears.

5 | Set each item as follows.


7:47
AV-IN SETUP
AV-IN2
«
»
Locating Satellites

iPod AV Interface Use: iPod

AV-IN Name: VIDEO

AV-IN2 Name: iPod

iPod AV Interface Use*1

Set the terminal which iPod is connected. Setting values are iPod and AV-IN2.

iPod (Default): You can listen to audio or watch video in your iPod as iPod source.

AV-IN2: You can listen to audio in your iPod as iPod source. You can also listen to audio or watch video output from a AV device as AV-IN2 source.

AV-IN1 Name / AV-IN2 Name*2

Set a name to be displayed when you select a system that is connected via the AV INPUT port. Default is "VIDEO".

---

*1 This item can be set when in STANDBY source and also the iPod is disconnected.

*2 [AV-IN2 Name] becomes settable when "AV-IN2" is selected in [iPod AV Interface Use].

AV Output Interface Setup

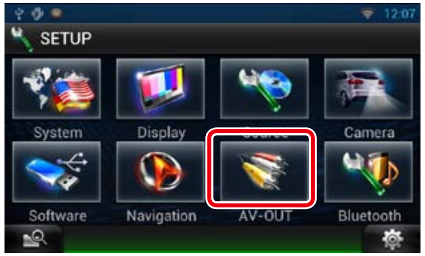
You can select an AV source to be output at the AV OUTPUT port. Default is "VIDEO1".

1 | Touch [⚙] on any screen.

2 | Touch [SETUP].

SETUP Menu screen appears.

3 | Touch [AV-OUT].


12:07
SETUP
System
Display
Camera
Software
Navigation
AV-OUT
Bluetooth

AV-OUT Interface screen appears.

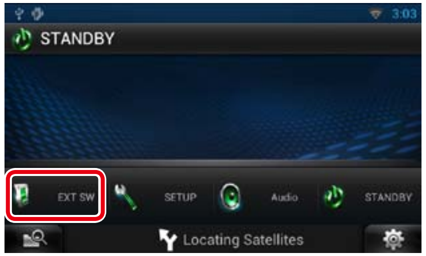
4 | Touch [◄] or [►] to set [AV-OUT] to VIDEO, DISC, iPod, or OFF.

External Device Control (DNN990HD)

Control the external device power supply.

1 | Touch [⚙] on any screen.

2 | Touch [EXT SW].


3:03
STANDBY
EXT SW
SETUP
Audio
STANDBY
Locating Satellites

You can turn on or off the external device power supply.

NOTE

- You must connect a commercially available relay unit in order to use this function. Connect the external device to be controlled to that relay unit.
- See *EXT SW setup (P.131)* for information on setting the power on or off specification.

Controlling Audio

NOTE
- Each operation in this section can be started from the multi function menu.

You can adjust the various settings such as audio balance or subwoofer level.

1 **Touch [⚙] on any screen.**

2 **Touch [Audio].**

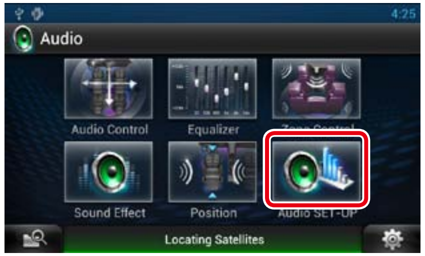
Audio screen appears.

See the following section for each setting.

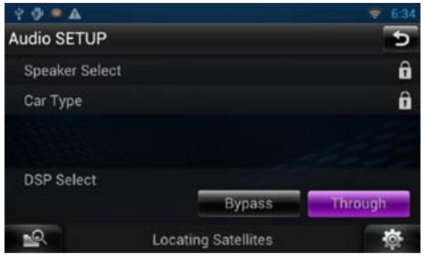
- **Setting audio** *(P.138)*
- **Controlling audio** *(P.142)*
- **Controlling equalizer** *(P.143)*
- **Controlling sound effect** *(P.145)*
- **Performing zone control** *(P.147)*
- **Set listening position** *(P.148)*

Setting Audio

1 **Touch [Audio SETUP].**


4:25
Audio
Audio Control
Equalizer
Zone Control
Sound Effect
Position
Audio SET-UP
Locating Satellites

Audio SETUP screen appears.


6:34
Audio SETUP
Speaker Select
Car Type
DSP Select
Bypass
Through
Locating Satellites

See the following section for each setting.

- **Set up speakers** *(P.139)*
- **Set up your car type** *(P.140)*
- **Select DSP** *(P.141)*

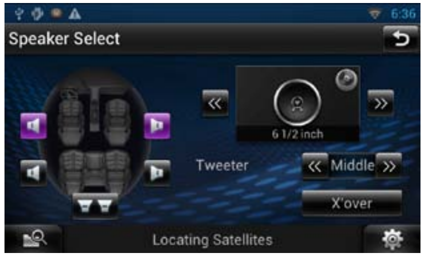
Speaker setup

You can select a speaker type and its size to get the best sound effects.

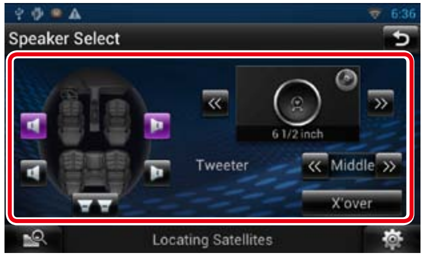
When the speaker type and size are set, the speaker crossover network is set automatically.

1 **Touch [Speaker Select] in the Audio SETUP screen.**

Speaker Select screen appears.


6:36
Speaker Select
6 1/2 inch
Tweeter
Middle
X'over
Locating Satellites

2 **Touch the speaker you wish to adjust and set each item as follows.**


6:36
Speaker Select
6 1/2 inch
Tweeter
Middle
X'over
Locating Satellites

Subwoofer (DNN770HD)

Select if you are using a subwoofer.

Tweeter (DNN990HD)

You can set the tweeter when you are selecting front speakers.

None, Small, Middle, Large

X'over

Displays the speaker crossover setup screen.

You can adjust the crossover setup that was set automatically when you selected the speaker type.

For details, see ***Crossover network setup (P.140)***

3 **Select a speaker size using [◄] and [►]. The speaker size is different depending on the speaker type and the navigation system.**

DNN990HD

Front

OEM, 3-1/2 inch, 4 inch, 4-3/4 inch, 5 inch, 6-1/2 inch, 6-3/4 inch, 7 inch, 4x6, 5x7, 6x8, 6x9, 7x10

Rear

None, OEM, 3-1/2 inch, 4 inch, 4-3/4 inch, 5 inch, 6-1/2 inch, 6-3/4 inch, 7 inch, 4x6, 5x7, 6x8, 6x9, 7x10

Subwoofer

None, 6 1/2 inch, 8 inch, 10 inch, 12 inch, 15 inch over

NOTE
- Select "None" if you have no speakers.

DNN770HD

Front

Standard, Wide, Middle, Narrow

Crossover network setup

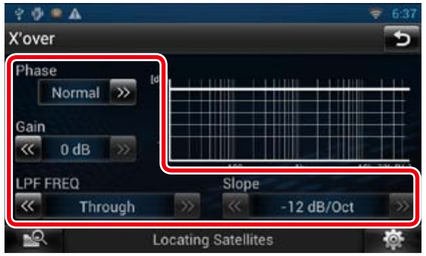
You can set a crossover frequency of speakers.

1 **Touch the speaker to set the crossover in the Speaker Select screen.**

2 **Touch [X'over].**

X'over screen appears.

3 **Set each item as follows.**


6:37
X'over
Locating Satellites
Phase Normal
Gain 0 dB
LPF FREQ Through
Slope -12 dB/Oct

TW (Tweeter) Gain *[1] **(DNN990HD)**

Adjust the tweeter level. (When front is selected on Speaker Select screen)

Gain (DNN990HD)

Adjust the front speaker, rear speaker, or subwoofer level.

Phase *[2]

Set the phase of subwoofer output.

The phase is reversed 180 degrees when set to "Reverse". (When subwoofer is selected on Speaker Select screen)

HPF FREQ

High Pass Filter adjustment. (When front or rear speaker is selected on Speaker Select screen)

LPF FREQ

Low Pass Filter adjustment. (When subwoofer is selected on Speaker Select screen)

Slope *[3] **(DNN990HD)**

Set a crossover slope.

---

*[1] Only when "Tweeter" is set to "Small", "Middle", "Large" in <Speaker Setup>.

*[2] Only when "Subwoofer" is set to a mode other than "None"/"OFF" in <Speaker Setup>.

*[3] Only when "LPF FREQ"/"HPF FREQ" is set to a mode other than "Through" in <X'over>.

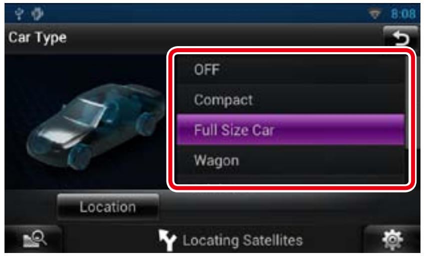
Car type setup (DNN990HD)

You can setup the car type and speaker network, etc.

1 **Touch [Car Type] in the Audio SETUP screen.**

Car Type screen appears.

2 **Select your car type from the list.**


8:08
Car Type
OFF
Compact
Full Size Car
Wagon
Location
Locating Satellites

NOTE

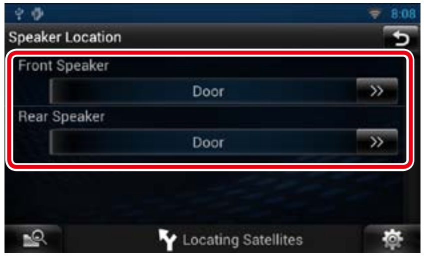
- If your car type is selected, the Delay Time Alignment is set automatically (for timing adjustment of sound output for each channel) to have the highest surround effects.

Speaker location setup

1 **In the Car Type screen, touch [Location].**

Speaker Location screen appears.

2 **Select the speaker locations using [►].**


8:08
Speaker Location
Locating Satellites
Front Speaker Door
Rear Speaker Door

Front Speaker

Select the location from "Door"/ "On Dash"/ "Under Dash".

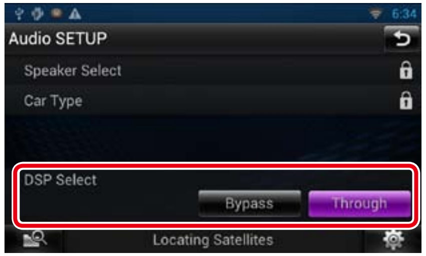
Rear Speaker

Select the location from "Door"/ "Rear Deck", "2nd Row"/ "3rd Row" (Minivan, Minivan (Long)).

DSP select (DNN990HD)

You can select whether using DSP (Digital Signal Processor) System.

1 **Touch [Bypass] or [Through] of [DSP Select] in the Audio SETUP screen.**


6:34
Audio SETUP
Speaker Select
Car Type
DSP Select
Bypass
Through
Locating Satellites

Bypass

There is no effect by DSP.

Through

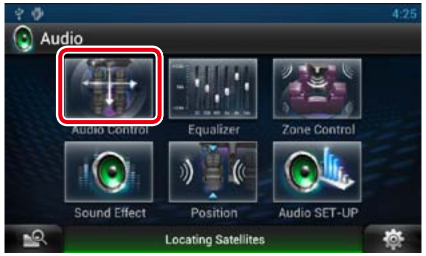
There is an effect by DSP.

NOTE

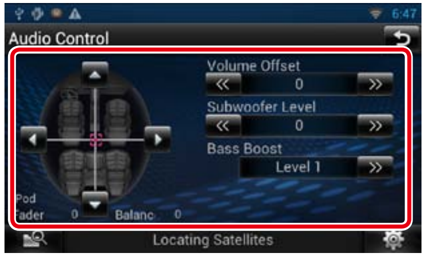
- When the mode is set to [Bypass], DSP System cannot be adjusted.

Controlling General Audio

1 | **Touch [Audio Control].**


4:25
Audio
Audio Control
Equalizer
Zone Control
Sound Effect
Position
Audio SET-UP
Locating Satellites

2 | **Set each item as follows.**


6:47
Audio Control
Volume Offset
0
Subwoofer Level
0
Bass Boost
Level 1
Pod
Fader 0
Balanc 0
Locating Satellites

Fader # / Balance #

Adjust the volume balance around the touched area.

[◀] and [▶] adjust the right and left volume balance.

[▲] and [▼] adjust the front and rear volume balance.

Volume Offset*

Finely adjust the volume of the current source to minimize the difference in volume between different sources.

Subwoofer Level

Adjust the subwoofer volume. This setting is not available when subwoofer is set to "None". See *Speaker setup (P.139)*.

Bass Boost (DNN990HD)

Set the amount of bass boost among "OFF"/ "Level1"/ "Level2"/ "Level3".

Loudness (DNN770HD)

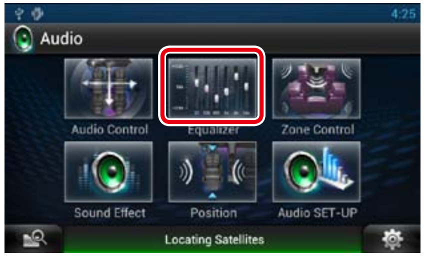
Turns the loudness control function on or off. If turned on, high and low tones are automatically enhanced during low volume. Settable only when zone function *(P.147)* is set to off.

*** If you have increased the volume first, then reduced the volume using the "Volume Offset", the sound generated if you suddenly switch to another source may be extremely loud.**

Equalizer Control

You can adjust equalizer by selecting the optimized setting for each category.

1 | **Touch [Equalizer].**

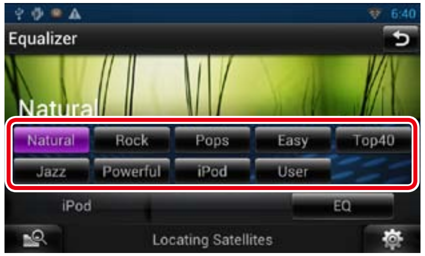

4:25
Audio
Audio Control
Equalizer
Zone Control
Sound Effect
Position
Audio SET-UP
Locating Satellites

Equalizer screen appears.

DNN990HD operation

Controlling EQ curves

1 | **Select EQ curve from [Natural], [Rock], [Pops], [Easy], [Top40], [Jazz], [Powerful], [iPod], and [User].**


6:40
Equalizer
Natural
Natural
Rock
Pops
Easy
Top40
Jazz
Powerful
iPod
User
iPod
EQ
Locating Satellites

NOTE

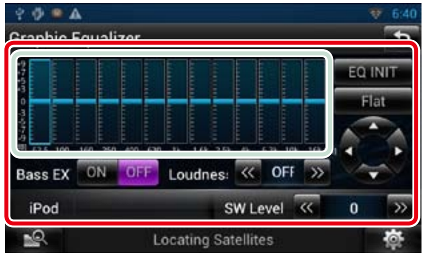
- [iPod] is available only during iPod source.

Controlling equalizer manually

The Graphic Equalizer cannot be set when you select [iPod] in the Equalizer screen.

1 | **Touch [EQ] in the Equalizer screen.**

2 | **Touch the screen and set the Graphic Equalizer as desired.**


6:40
Graphic Equalizer
EQ INIT
Flat
Bass EX
ON
OFF
Loudnes:
OFF
iPod
SW Level
0
Locating Satellites

Gain level (light green boxed area)

Adjust the gain level by touching the each frequency bar.

Touching [◀], [▶], [▲] and [▼] can also adjust the level. Use [◀] and [▶] to select a frequency, and [▲] and [▼] to set the level.

EQ INIT

Returns to the previous level which the gain level is adjusted.

Flat

Tone curve becomes flat.

Bass EXT (Bass Extend Settings)

When turned on, the frequency lower than 62.5 Hz is set to the same gain level as 62.5 Hz.

Loudness

Set the amounts of boost of low and high tones. "OFF", "Low", "High"

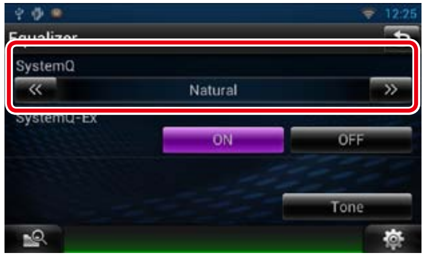
SW Level

Adjust the subwoofer volume. This setting is not available when subwoofer is set to "None". See *Speaker setup (P.139)*.

DNN770HD operation

Controlling EQ curves

1 Select EQ curve from [Natural], [Rock], [Pops], [Easy], [Top40], [Jazz], and [User] using [◄] and [►].


12:25
Equalizer
SystemQ
«
Natural
»
SystemQ-Ex
ON
OFF
Tone

Controlling SystemQ-Ex

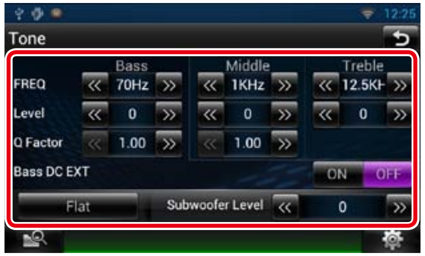
Selects items to be adjusted for tone curve setup. If you turn off this setting, only Level can be set up for tone curves.

1 Touch [ON] or [OFF] of [SystemQ-Ex].

Controlling equalizer manually

1 Touch [Tone] in the Equalizer screen.

2 Set each item as follows.


12:25
Tone
Bass
Middle
Treble
FREQ
70Hz
1KHz
12.5KHz
Level
0
0
0
Q Factor
1.00
1.00
Bass DC EXT
ON
OFF
Flat
Subwoofer Level
0

FREQ

Adjusts the center frequency for each range.

Setting values are as follows.

Bass: 60Hz/70Hz/80Hz/100Hz/110Hz/120Hz/ 130Hz/150Hz (Default is "100Hz".)

Middle: 500Hz/1kHz/1.5kHz/2kHz (Default is "1kHz".)

Treble: 10kHz/12.5kHz/15kHz/17.5kHz (Default is "12.5kHz".)

LEVEL

Adjusts the level of each range.

Each setting value is within -8dB and 8dB and default is "0dB".

Q Factor

Adjust Q value for bass and middle.

Setting values are as follows.

Bass: 1/1.25/1.5/2 (Default is "1".)

Middle: 1/2 (Default is "1".)

Bass DC EXT

Turns Bass DC EXT on or off. Default is "OFF".

If you select "ON", the bass center frequency is extended to the low register by approximately 20%.

[Flat]

Tone level becomes 0 (flat).

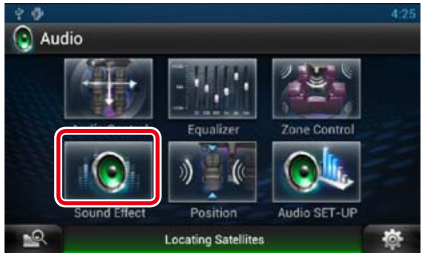
Subwoofer Level

Adjusts the subwoofer volume. This setting is not available when subwoofer is set to "OFF". See ***Speaker setup (P.139)***.

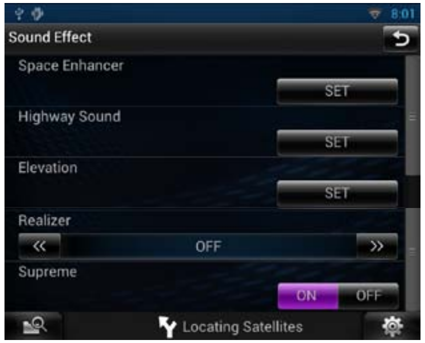
Sound Effect (DNN990HD)

You can set sound effects.

1 Touch [Sound Effect].


4:25
Audio
Equalizer
Zone Control
Sound Effect
Position
Audio SET-UP
Locating Satellites

Sound Effect screen appears.

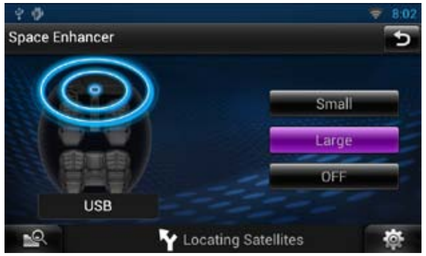

8:01
Sound Effect
Space Enhancer
SET
Highway Sound
SET
Elevation
SET
Realizer
«
OFF
»
Supreme
ON
OFF
Locating Satellites

See the following section for each setting.

- **Set space enhancer** ***(P.145)***
- **Set highway sound** ***(P.146)***
- **Set up elevation** ***(P.146)***
- **Set up realizer or supreme** ***(P.146)***

Space Enhancer

1 Touch [Space Enhancer] in the Sound Effect screen.


8:02
Space Enhancer
Small
Large
OFF
USB
Locating Satellites

Space Enhancer screen appears.

2 Touch [Small], [Large], or [OFF].

Each setting value indicates the soundscape level.

NOTE

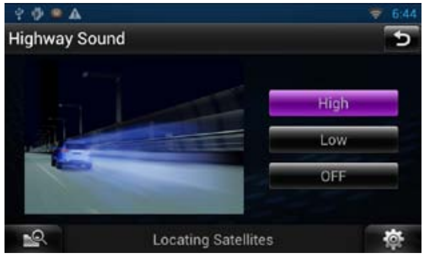
- This setting is not available during HD Radio tuner source.

Highway sound setting

You can boost a certain range of sound that becomes hard to hear due to road noise.

1 **Touch [Highway Sound] in the Sound Effect screen.**

Highway Sound screen appears.

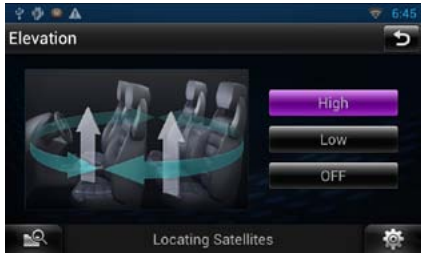

6:44
Highway Sound
High
Low
OFF
Locating Satellites

2 **Select the boost level from among [High], [Low], and [OFF].**

Elevation

You can raise the sound position heard from the speakers virtually.

1 **Touch [Elevation] in the Sound Effect screen.**


6:45
Elevation
High
Low
OFF
Locating Satellites

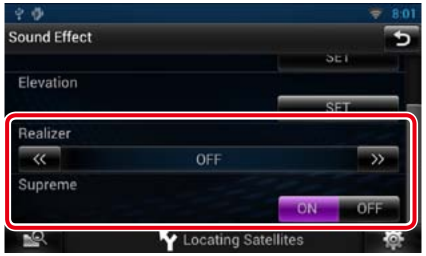
Elevation screen appears.

2 **Select Elevation level from [High], [Low], and [OFF].**

Realizer and Supreme

You can restore the sound lost due to audio compression to a realistic sound.

1 **Touch the screen in the Sound Effect screen.**


8:01
Sound Effect
SET
Elevation
SET
Realizer
OFF
Supreme
ON
OFF
Locating Satellites

Realizer

Realizer is sound enhancement and boosting low frequencies (bass boost).

Select the level from "OFF"/ "Level1"/ "Level2"/ "Level3".

Supreme

Turns ON/OFF the Supreme function.

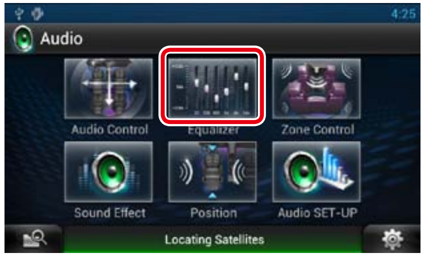
Technology to extrapolate and supplement with proprietary algorithm, the high-frequency range that is cut off when encoding.

This function works on DVD MEDIA, USB, SD and iPod sources.

Zone Control

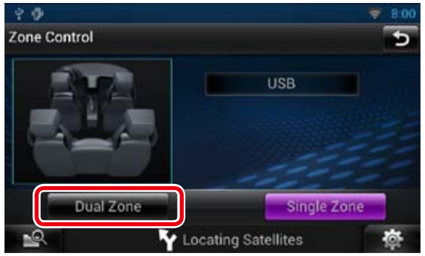
You can select different sources for both front and rear positions in the vehicle.

1 **Touch [Zone Control].**

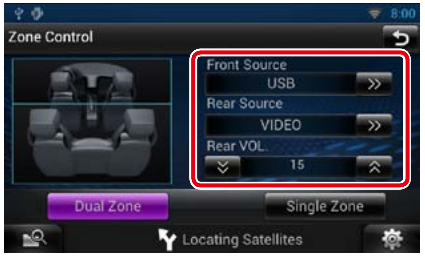

4:25
Audio
Audio Control
Equalizer
Zone Control
Sound Effect
Position
Audio SET-UP
Locating Satellites

Zone Control screen appears.

2 **Touch [Dual Zone].**


8:00
Zone Control
USB
Dual Zone
Single Zone
Locating Satellites

3 **Set each source as follows.**


8:00
Zone Control
Dual Zone
Single Zone
Locating Satellites

Front Source USB
Rear Source VIDEO
Rear VOL. 15

[►] (Front Source, Rear Source)

Select the audio source for each.

[▼], [▲] (Rear VOL.)

Adjust the rear channel volume.

[Single Zone]

Touch to turn off the dual zone function.

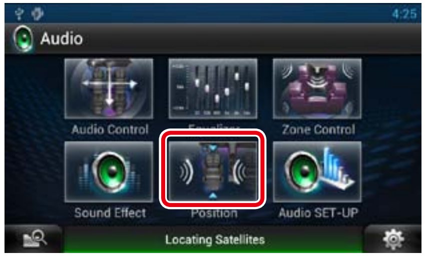
NOTE

- When the rear speaker sound is switched, the audio source that is output at the AV OUTPUT terminal is also switched to the same source.
- When the dual zone function is set to on, the following functions are not available.
  - Output from the subwoofer
  - Subwoofer Level/Bass Boost *(P.142)*
  - Equalizer Control/Sound Effect/Listening Position *(P.143, 145, 148)*
  - DSP Bypass Control/Speaker Setup/Car Type Setup *(P.141, 139, 140)*

Listening Position (DNN990HD)

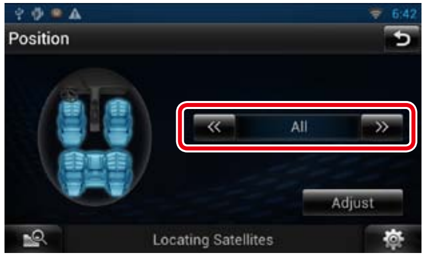
You can adjust the sound effects according to your listening position.

1 Touch [Position].


4:25
Audio
Audio Control
Equalizer
Zone Control
Sound Effect
Position
Audio SET-UP
Locating Satellites

Position screen appears.

2 Select listening position from [Front R] (Right front), [Front L] (Left front), [Front All] (All front), and [All] using [◄] and [►].

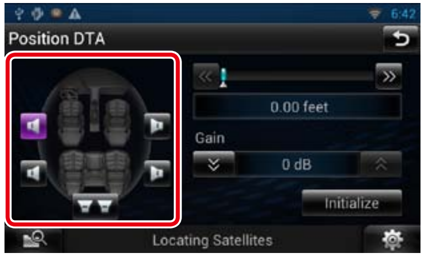

6:42
Position
All
Adjust
Locating Satellites

Position DTA Control

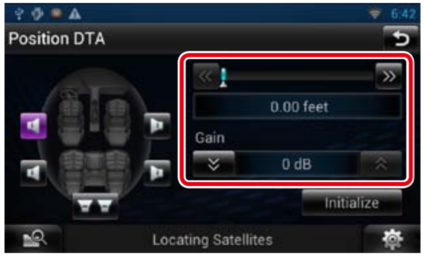
You can fine-adjust your listening position.

1 In Position screen, touch [Adjust].

2 Select the speaker you wish to adjust by touching speaker icon.


6:42
Position DTA
0.00 feet
Gain
0 dB
Initialize
Locating Satellites

3 Set DTA as follows.


6:42
Position DTA
0.00 feet
Gain
0 dB
Initialize
Locating Satellites

[◄], [►]

Adjust the settings of the DTA position.

Gain

Touch to adjust the gain of each speaker.

Initialize

Initializes the setting values.

NOTE

- Make fine adjustment of the delay time of the speaker output specified here to have a more suitable environment for your vehicle.
- If you specify the distance from the center of the currently set listening position to every speaker, the delay time will be automatically computed and set.

①Determine the center of the currently set listening position as the reference point.

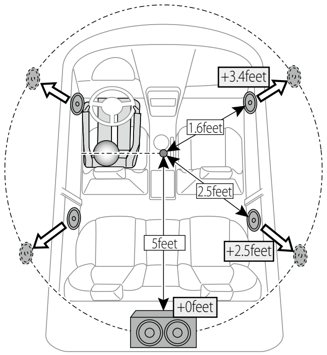
②Measure the distances from the reference point to the speakers.

③Calculate the differences between the distance of the furthest speaker and other speakers.

④Input the differences calculated in step 3 for individual speakers.

⑤Adjust gain for individual speakers. A sound image will be shifted to the speaker with increased gain.

Example: When [Front All] is selected as the listening position


+3.4feet
1.6feet
2.5feet
5feet
+2.5feet
+0feet

Remote Control

This navigation system can be operated using the remote controller.

⚠CAUTION

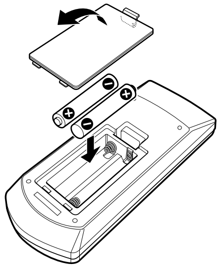
- **Put the remote controller in a place where it will not move during braking or other operations. A dangerous situation could result, if the remote controller falls down and gets wedged under the pedals while driving.**
- **Do not leave the battery near fire or under direct sunlight. A fire, explosion or excessive heat generation may result.**
- **Do not recharge, short, break up or heat the battery or place it in an open fire. Such actions may cause the battery to leak fluid. If spilled fluid comes in contact with your eyes or on clothing, immediately rinse with water and consult a physician.**
- **Place the battery out of reach of children. In the unlikely event that a child swallows the battery, immediately consult a physician.**

Battery Installation

If the remote controller operates only over shorter distances or does not operate at all, it is possible that the batteries are depleted.

In such instances, replace the both batteries with new ones.

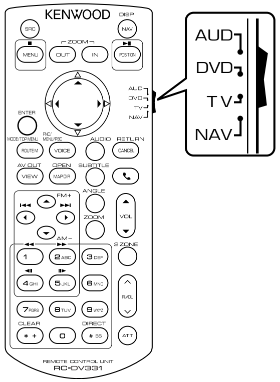
1 **Insert two "AAA"/"R03"-size batteries with the ⊕ and ⊖ poles aligned properly, following the illustration inside the case.**



Functions of the Remote Control Buttons

Switching the operation mode

The functions operated from the remote controller differ depending on the position of the mode switch.



AUD mode

Switch to this mode when controlling a selected source or tuner source, etc.

DVD mode

Switch to this mode when playing a disc media including DVD, VCD, and CD.

NAV mode

Switch to this mode when controlling navigation function.

NOTE

- When controlling a player that is not integrated in the unit, select "AUD" mode.

Direct search mode

Using the remote controller, you can jump directly to the desired file, track chapter, etc. with entering the number corresponding to the content.

NOTE

- This operation cannot be performed for USB device and iPod.

1 **Press the <#BS> button several times until the desired content appears.**

The available content are different depending on the source.

DVD

Title number/Chapter number/Play time/Item number*

* You may not be able to use this function with some discs or scenes.

VCD 1.X and 2.X (PBC OFF)

Track number

VCD 2.X (PBC ON)

Scene number/number

Music CD

Track number/Play time

Audio files

Folder number/File number

HD Radio tuner

Frequency value/Channel number

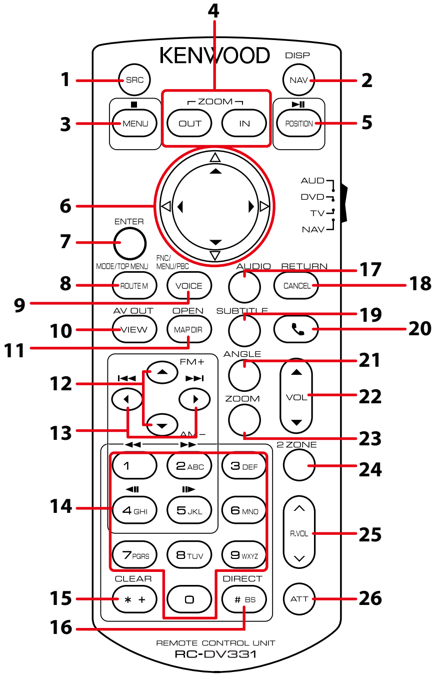
SiriusXM

Channel number

2 **Enter the number of the content you want to play using the numeric keypad.**

3 **For DVD or VCD, press the <ENTER> button.**
For music CD or audio files, press the <POSITION> button.
For radio, press the <◄> or <►> button.

The content you entered is played.


4
KENWOOD
DISP
1
SRC
NAV
2
ZOOM
3
MENU
OUT
IN
POSITION
5
AUD
DVD
TV
NAV
6
ENTER
7
MODE/TOP MENU
FNC/MENU/PBC
AUDIO
RETURN
17
8
ROUTE M
VOICE
CANCEL
18
9
AV OUT
OPEN
SUBTITLE
19
10
VIEW
MAP DIR
20
11
FM+
ANGLE
21
12
VOL
22
ZOOM
13
AM−
23
2 ZONE
24
1
2 ABC
3 DEF
14
4 GHI
5 JKL
6 MNO
R.VOL
25
7 PQRS
8 TUV
9 WXYZ
CLEAR
DIRECT
15
∗ +
0
# BS
ATT
26
16
REMOTE CONTROL UNIT
RC-DV331

	Key Name	Location of the mode switch	Function
1	SRC	–	Switches to the source to be played. In hands-free mode, hangs up the phone.
2	NAV	–	Switches between the navigation and the source screens.
3	MENU	DVD	Stops playing and memorizes the last point where the disc stopped. The last point is deleted by pressing twice.
		NAV	Displays Main menu.
4	OUT, IN	NAV	Zooms in or out the navigation map.
5	POSITION	AUD, DVD	Pauses the track or file, and resumes playing by pressing twice. During HD Radio, and SiriusXM source in AUD mode, switches the seek mode.
		NAV	Displays the current position.
6	Cursor Key	DVD	Moves the cursor in the DVD menu.
		NAV	Moves the cursor or scrolls the map.
7	ENTER	AUD, DVD	Performs the selected function.
		NAV	• Registers the selected position. • Performs the selected function.

	Key Name	Location of the mode switch	Function
8	ROUTE M	AUD	Screen mode changes each time you press this key during video playback.
		DVD	Returns to the DVD top menu.
		NAV	Displays Route Option menu.
9	VOICE	AUD	Switches navigation display on/off.
		DVD	Displays the DVD menu. Turns the playback control on or off while playing VCD.
		NAV	Speaks the voice guidance.
10	VIEW	AUD, DVD	Switches the AV source to be output.
		NAV	Switches between 2D and 3D map displays.
11	MAP DIR	AUD, DVD	Switches the display angle each time it is pressed.
		NAV	Switches between the heading up navigation and north up navigation map displays.
12	▲/▼	AUD, DVD	Selects the folder to be played. During HD Radio, and SiriusXM source in AUD mode, switches the bands to be received.
13	◀/▶	AUD, DVD	Selects the track or file to be played. During HD Radio, and SiriusXM source in AUD mode, switches to broadcast stations received by the unit.
14	Numeric Keypad	AUD	Specifies the number to search in direct search. For details on the direct search mode, see ***Direct search mode (P.151)***.
		DVD	• Press [1] [2] to fast forward/backward. Switches the fast forward/backward speed each time you press this key.* • Press [4] [5] to slow forward/backward. Switches the slow playback speed each time you press this key.* *DVD only
15	∗ +	DVD	Clears the number.
16	# BS	AUD, DVD	Switches to the direct search mode. For details on the direct search mode, see ***Direct search mode (P.151)***.
17	AUDIO	DVD	Switches the voice language each time you press this key.
18	CANCEL	DVD	Displays previous screen.
		NAV	Cancels the operations.
19	SUBTITLE	DVD	Switches the subtitle language.
20	☎	–	When a call comes in, answers the call.
21	ANGLE	DVD	Switches the picture angle each time you press this key.
22	Vol ▲▼	–	Adjusts the volume.
23	ZOOM	DVD	Switches the zoom ratio (1, 2, 3, Off) each time you press this key.
24	2 ZONE	AUD, DVD	Switches the Dual Zone function on and off.
25	R.VOL ∧∨	–	Adjusts volume at rear when the Dual Zone function is on.
26	ATT	–	Lowers the volume by pressing the key once. Restores the previous volume by pressing the key twice.

Troubleshooting

Problems and Solutions

If any trouble occurs, first check the following table for possible problems.

- **Some functions of this unit may be disabled by some settings made on this unit.**
- **What might seem to be a malfunction in your unit may just be the result of slight misoperation or miswiring.**

About settings

Problem	Reason	Solution
• Cannot set up the subwoofer. • Cannot set up subwoofer phase. • No output from the subwoofer. • Cannot set up the low pass filter. • Cannot set up the high pass filter.	Subwoofer is not set to on.	Set the subwoofer to on. See ***Speaker setup (P.139)***.
	The dual zone function is enabled.	Set the dual zone function to off. See ***Zone Control (P.147)***.
• Cannot select the output destination of the subsource in the dual zone. • Cannot adjust the volume of the rear speakers.	The dual zone function is disabled.	Set the dual zone function to on. See ***Zone Control (P.147)***.
• Cannot set up the equalizer. • Cannot set up the crossover network.	The dual zone function is enabled.	Set the dual zone function to off. See ***Zone Control (P.147)***.
	"DSP Select" is set to "Bypass".	Set "DSP Select" to "Through". See ***DSP select (P.141)***.

About audio operations

Problem	Reason	Solution
Radio reception is poor.	The car antenna is not extended.	Pull out the antenna all the way.
	The antenna control wire is not connected.	Connect the wire correctly. See "Connection" in the Quick Start Guide.
Cannot play audio files stored in a disc.	"CD Read" is set to "2".	Set "CD Read" to "1". See ***Disc setup (P.65)***.
Cannot select a folder.	The random play function is enabled.	Turn off the random function.
Cannot perform repeat play during VCD playback.	The PBC function is enabled.	Turn off the PBC function.
The specified disc does not play, but another one plays instead.	The disc is quite dirty.	Clean the disc. See ***Precautions on handling discs (P.4)***.
	The disc is severely scratched.	Try another disc instead.

Problem	Reason	Solution
The sound skips when an audio file is being played.	The disc is scratched or dirty.	Clean the disc. See ***Precautions on handling discs (P.4)***.
	The recording condition is bad.	Record the file again or use another disc.

Other

Problem	Reason	Solution
The Touch Sensor Tone doesn't sound.	The preout jack is being used.	The Touch Sensor Tone cannot be output from the preout jack.

Error Messages

When you fail to operate the unit correctly, the cause of the failure appears as the message on the screen.

Error Message	Cause	Solution
Protect	Protective circuit has been activated because a speaker cord has shorted or it has come in contact with the car chassis.	Wire or insulate the speaker cord as appropriate and then press the <Reset> button ***(P.157)***.
Hot Error	When the internal temperature of this unit rises to 60°C or more, the protection circuit is activated and you may not be able to operate the unit.	Use the unit again after reducing the temperature of the unit.
Mecha Error	The disc player is malfunctioning.	Eject the disc and try inserting it again. Contact the Kenwood dealer if this indicator continues blinking or the disc cannot be ejected.
Disc Error	An unplayable disc is inserted.	Change the disc. See ***Playable Media and Files (P.158)***.
Read Error	The disc is quite dirty.	Clean the disc. See ***Precautions on handling discs (P.4)***.
	Disc is upside down.	Load the disc with the labeled side up.
Region Code Error	The disc you wanted to play has a region code that cannot be played with this unit.	See ***Region Codes in the World (P.163)*** or try another disc.
Parental Level Error	The disc you wanted to play has a higher level than the parental level you set.	Set the parental level. See ***Parental level (P.65)***.
Error 07–67	The unit is not operating correctly due to some reason or other.	Push the unit's Reset button. If the "Error 07–67" message does not disappear, see your nearest Kenwood dealer.
No Device (USB device)	The USB device is selected as a source although no USB device is connected.	Change the source to any source other than USB/iPod. Connect a USB device, and change the source to USB again.

Error Message	Cause	Solution
Disconnected (iPod, Bluetooth audio player)	The iPod/Bluetooth audio player is selected as a source although no iPod/Bluetooth audio player is connected.	Change the source to any source other than iPod/Bluetooth. Connect an iPod/Bluetooth audio player, and change the source to iPod/ Bluetooth again.
No Media file	The connected USB device contains no playable audio file. Media was played that doesn't have data recorded that the unit can play.	See ***Playable Media and Files (P.158)*** and try another USB device.
USB Device Error!!	The connected USB device is rated a current capacity higher than the allowable limit.	Check the USB device. Some trouble may have occurred to the connected USB device. Change the source to any source other than USB. Remove the USB device.
Authorization Error	Connection to the iPod has failed.	• Remove the iPod and then reconnect it. • The unit does not support the iPod. See ***Connectable iPod/iPhone (P.160)***.
Update your iPod	The iPod's software is an older version which the unit can not support.	The unit may not support the connected iPod model. Confirm that the software for the iPod is the latest version. See ***Connectable iPod/iPhone (P.160)***.
Navigation Error. Please turn on power again later.	The communication error has occurred due to severely cold temperature.	Turn on power again after warming your car interior.
Network is disconnected	Not connected to Wi-Fi.	Connect to Wi-Fi.
Account Error	Logged in using Guest or Administrator account.	To link to the Route Collector site, log in using Owner or User account and then use the Storage application.
Your Dropbox and Kenwood accounts are not linked.	Dropbox account information is not registered to the logged in Owner or User account.	Log in Route Collector site and register the Dropbox account

SiriusXM

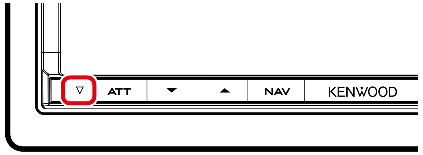
Error Message	Cause	Solution
Check Tuner	A SiriusXM tuner is not connected to this navigation system.	Check the connection to the SiriusXM tuner.
Subscription Updated - Press Return To Continue	The SiriusXM subscription has been renewed.	Touch [↩] to clear the error message.
Channel Not Available	The currently selected channel is unavailable.	—
Ch Unsubscribed	The currently selected channel is not subscribed to.	—
Check Antenna	No antenna is connected to the SiriusXM tuner.	Check that an antenna is connected to the SiriusXM tuner.
No Signal	No SiriusXM radio signal is received.	—

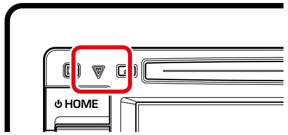
Resetting the Navigation System

If the navigation system or the connected device fails to operate properly, reset the navigation system.

1 **Press the <Reset> button.**

The unit returns to factory settings.





NOTE

- Disconnect the USB device before pressing the <Reset> button. Pressing the <Reset> button with the USB device connected can damage the data stored in the USB device. For how to disconnect the USB device, see ***How to Play Media (P.20)***.
- When the navigation system is turned on after resetting, the Initial SETUP screen appears. See ***Initial setup (P.16)***.

Appendix

Playable Media and Files

You can play various kinds of media and files on this navigation system.

List of playable discs

Disc types	Standard	Support	Remark
DVD	DVD Video	○	
	DVD Audio	×	
	DVD-VR	×	
	DVD-R*1	○	• MP3/WMA/AAC/MPEG1/MPEG2/DivX playback • Multi-border/Multisession playback (Playback depends on authoring conditions)
	DVD-RW	○	
	DVD+R	○	
	DVD+RW	○	
	DVD-R DL (Dual layer)	○	Only video format
	DVD+R DL (Double layer)	○	
	DVD-RAM	×	
CD	Music CD*1	○	CD-TEXT
	CD-ROM	○	• MP3/WMA/AAC/MPEG1/MPEG2/DivX playback • Multisession is supported. • Packet write is not supported.
	CD-R	○	
	CD-RW	○	
	DTS-CD	○	
	Video CD (VCD)	○	
	Super video CD	×	
	Photo CD	×	
	CD-EXTRA	△	Only music CD session can be played.
	HDCD	○	
	CCCD	×	
Others	Dualdisc	×	
	Super audio CD	△	Only CD layer can be played.

*1 Incompatible with 8 cm (3 inch) discs.

○ : Playback is possible.
△ : Playback is partly possible.
× : Playback is impossible.

NOTE

- When buying DRM enabled content, check the Registration Code in the *DivX® VOD (P.81)*. Each time a file with the displayed code is played and protected against copying, the code changes.
- DivX can be played only from a DVD disc media.

● Use of DualDisc

When playing a "DualDisc" on this unit, the surface of the disc that is not played may be scratched while the disc is inserted or ejected. Since the music CD surface does not conform to the CD standard, playback may be impossible.

(A "DualDisc" is a disc with one surface containing DVD standard signals and the other surface containing music CD signals.)

● About disc format

The disc format should be the one of the following.

- ISO 9660 Level 1/2
- Joliet
- Romeo
- Long file name

About files

The following audio, video, and picture files are supported.

● Audio files

- AAC-LC (.m4a)
- MP3 (.mp3)
- WMA (.wma)
- Linear PCM (WAVE) (.wav)
  *Mass-storage-class USB device only

NOTE

- If music of normal CD and other playback systems are recorded in the same disc, only the playback system recorded at the first setout is played.
- WMA and AAC of which is covered with DRM cannot be played.
- Although the audio files are complied with the standards listed above, the play may be impossible depending on the types or conditions of media or device.
- An online manual about audio files is posted on the site, www.kenwood.com/cs/ce/audiofile/. On this online manual, detailed information and notes which are not written in this manual are provided. Make sure to read through the online manual as well.

● Video files

- MPEG1 (.mpg, .mpeg, .m1v)
- MPEG2 (.mpg, .mpeg, .m2v)
- DivX (.divx, .div, .avi)
  *Only for DVD of DNN990HD
- H.264/MPEG-4 AVC (.mp4, .m4v)
  *Mass-storage-class USB device only
- WMV 9 (.wmv, .m2ts)
  *Mass-storage-class USB device only

● Picture files

Only picture files in USB device can be displayed.

Files stored in disc media is not supported.

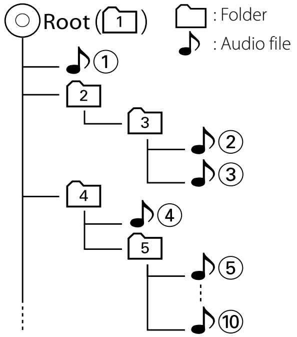
- JPEG (.jpg, .jpeg)
- PNG (.png)
- BMP (.bmp)

NOTE

- BMP and PNG can be set only as wallpaper.

● Playing order of files

In the example of folder/file tree shown below, the files are played in the order from ① to ⑩.



Connectable iPod/iPhone

The following models can be connected to this navigation system.

You can control an iPod/iPhone from this navigation system by connecting an iPod/iPhone (commercial product) with Dock connector using an optional accessory iPod connection cable (KCA-iP202 or KCA-iP102). The word "iPod" appearing in this manual indicates the iPod/iPhone connected with the KCA-iP202/KCA-iP102 (optional accessory) connector.

Made for

- iPod nano (6th generation)
- iPod nano (5th generation)
- iPod nano (4th generation)
- iPod nano (3rd generation)
- iPod with video
- iPod classic
- iPod touch (4th generation)
- iPod touch (3rd generation)
- iPod touch (2nd generation)
- iPod touch (1st generation)
- iPhone 4S
- iPhone 4
- iPhone 3GS
- iPhone 3G
- iPhone

NOTE

- For the conformity information on iPod/iPhone software,
  access ***www.kenwood.com/cs/ce/ipod/***.
- By connecting your iPod/iPhone to this unit with an optional accessory iPod connection cable (KCA-iP202/ KCA-iP102), you can supply power to your iPod/iPhone as well as charge it while playing music. However, the power of this unit must be on.
- If you start playback after connecting the iPod, the music that has been played by the iPod is played first.
  In this case, "Reading" is displayed without displaying a folder name, etc. Changing the browse item will display a correct title, etc.
- When the iPod is connected to this unit, "KENWOOD" or "✓" is displayed on the iPod to indicate that you cannot operate the iPod.

Usable USB device

You can use a mass-storage-class USB device on this navigation system.

The word "USB device" appearing in this manual indicates a flash memory device and digital audio players can be recognized as mass-storage.

● About file system

The file system should be the one of the following.

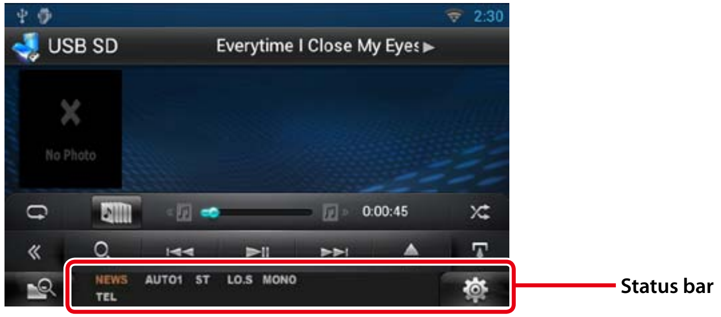
- FAT16
- FAT32

NOTE

- When the USB device is connected to this unit, it can be charged through the USB cable.
- Install the USB device in the place where it will not affect safe driving.
- You cannot connect a USB device via a USB hub and Multi Card Reader.
- Take backups of the audio files used with this unit. The files can be erased depending on the operating conditions of the USB device.
  We shall have no compensation for any damage arising from any erased data.
- No USB device comes with this unit. You need to purchase a commercially available USB device.
- When connecting the USB device, usage of the CA-U1EX (option) is recommended. (However, maximum supply current of CA-U1EX is 500mA.) Normal playback is not guaranteed when a cable other than the USB compatible cable is used.

Status Bar Indicator Items

Shown below is a list of indicators displayed on the status bar in the screen.
Current status of this navigation system is displayed on the bar.



● General

ATT	The attenuator is active.
DUAL	The dual zone function is on.
TEL	Indicates the connection state of the Bluetooth hands-free unit. • White: Connected • Orange: Not connected
LOUD	The loudness control function is on.

● DVD/CD

FO-REP	Folder repeat function is on.
IN	A disc is inserted. • White: A Disc is inside the unit. • Orange: Error at the disc player
VIDEO	Identifies the video file.
MUSIC	Identifies the music file.
RDM	The random function is on.
REP	The repeat function is on.
C-REP	The chapter repeat function is on.
T-REP	The title repeat function is on.

● VCD

1chLL/2chLL	Identifies the left audio output of channel 1 or 2.
1chLR/2chLR	Identifies the monaural audio output of channel 1 or 2.
1chRR/2chRR	Identifies the right audio output of channel 1 or 2.
1chST/2chST	Identifies the stereo audio output of channel 1 or 2.
LL	Identifies the left audio output.
LR	Identifies the monaural audio output.
RR	Identifies the right audio output.
STEREO	Identifies the stereo audio output.
PBC	The PBC function is on.
SVCD	Identifies the Super Video CD.
VER1	The VCD version is 1.
VER2	The VCD version is 2.
REP	The repeat function is on.

● USB SD

FO-REP
The folder repeat function is on.

VIDEO
Identifies the video file.

MUSIC
Identifies the music file.

RDM
The random function is on.

REP
The repeat function is on.

PLST
The play list mode is selected now.

● iPod

MUSIC
Identifies the music file.

VIDEO
Identifies the video file.

RDM
The random function is on.

A-RDM
The album random function is on.

REP
The repeat function is on.

● HD Radio reception

AUTO1
Seek mode is set to AUTO1.

AUTO2
Seek mode is set to AUTO2.

MANU
Seek mode is set to MANUAL.

HD
HD Radio station is being received.

ANALOG
An analog broadcast is being received.

DIGITAL
A digital broadcast is being received.

ST
A stereo broadcast is being received.

TI
Indicates the reception state of traffic information.

- White: TP is being received.
- Orange: TP is not being received.

● SiriusXM

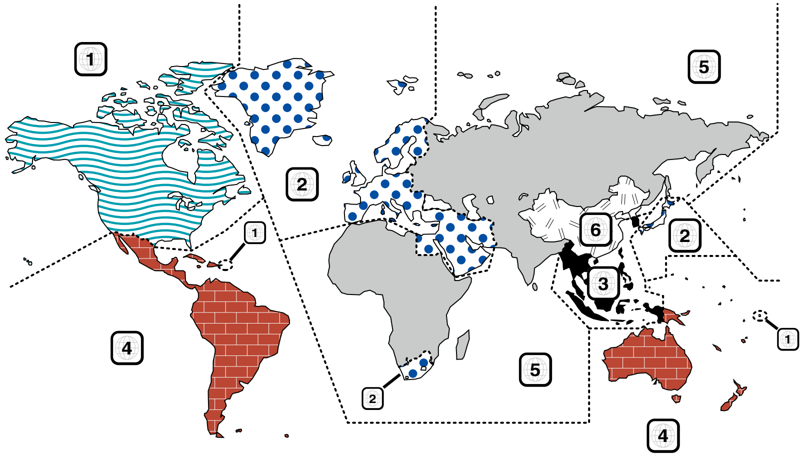
SEEK1
Seek mode is set to SEEK1.

SEEK2
Seek mode is set to SEEK2.

TAG
Tagging is enabled.

Region Codes in the World

The DVD players are given a region code according to the country or area it is marketed, as shown in the following map.



● DVD disc marks

ALL

Indicates a region number. The discs with this mark can be played with any DVD player.

8

Indicates the number of audio languages recorded. Up to 8 languages can be recorded in a movie. You can select a favorite language.

32

Indicates the number of subtitled languages recorded. Up to 32 languages can be recorded.

9

If a DVD disc has scenes shot from multiple angles, you can select a favorite angle.

16:9 LB

Indicates the type of screen for the image. The left mark indicates that a wide image picture (16:9) is displayed on a standard TV set screen (4:3) with a black band at both the top and bottom of the screen (letter box).

● Operation regulatory marks

With this DVD, some functions of this unit such as the play function may be restricted depending on the location where the DVD is playing. In this case, the following marks will appear on the screen. For more information, refer to the disc manual.

Prohibition Mark
⊘

● Discs with limited period of use

Do not leave discs with a limited period of use in this unit. If you load an already expired disc, you may not be able to remove it from this unit.

DVD Language Codes

Code	Language
aa	Afar
ab	Abkhazian
af	Afrikaans
am	Amharic
ar	Arabic
as	Assamese
ay	Aymara
az	Azerbaijani
ba	Bashkir
be	Byelorussian
bg	Bulgarian
bh	Bihari
bi	Bislama
bn	Bengali, Bangla
bo	Tibetan
br	Breton
ca	Catalan
co	Corsican
cs	Czech
cy	Welsh
da	Danish
de	German
dz	Bhutani
el	Greek
en	English
eo	Esperanto
es	Spanish
et	Estonian
eu	Basque
fa	Persian
fi	Finnish
fj	Fiji
fo	Faroese
fr	French
fy	Frisian
ga	Irish
gd	Scots Gaelic
gl	Galician
gn	Guarani
gu	Gujarati
ha	Hausa
he	Hebrew
hi	Hindi
hr	Croatian
hu	Hungarian
hy	Armenian

Code	Language
ia	Interlingua
ie	Interlingue
ik	Inupiak
id	Indonesian
is	Icelandic
it	Italian
ja	Japanese
jv	Javanese
ka	Georgian
kk	Kazakh
kl	Greenlandic
km	Cambodian
kn	Kannada
ko	Korean
ks	Kashmiri
ku	Kurdish
ky	Kirghiz
la	Latin
lb	Luxembourgish
ln	Lingala
lo	Laotian
lt	Lithuanian
lv	Latvian, Lettish
mg	Malagasy
mi	Maori
mk	Macedonian
ml	Malayalam
mn	Mongolian
mo	Moldavian
mr	Marathi
ms	Malay
mt	Maltese
my	Burmese
na	Nauru
ne	Nepali
nl	Dutch
no	Norwegian
oc	Occitan
om	(Afan) Oromo
or	Oriya
pa	Punjabi
pl	Polish
ps	Pashto, Pushto
pt	Portuguese
qu	Quechua
rm	Rhaeto-Romance

Code	Language
rn	Kirundi
ro	Romanian
ru	Russian
rw	Kinyarwanda
sa	Sanskrit
sd	Sindhi
sg	Sangho
sh	Serbo-Croatian
si	Singhalese
sk	Slovak
sl	Slovenian
sm	Samoan
sn	Shona
so	Somali
sq	Albanian
sr	Serbian
ss	Siswati
st	Sesotho
su	Sundanese
sv	Swedish
sw	Swahili
ta	Tamil
te	Telugu
tg	Tajik
th	Thai
ti	Tigrinya
tk	Turkmen
tl	Tagalog
tn	Setswana
to	Tongan
tr	Turkish
ts	Tsonga
tt	Tatar
tw	Twi
uk	Ukrainian
ur	Urdu
uz	Uzbek
vi	Vietnamese
vo	Volapuk
wo	Wolof
xh	Xhosa
yo	Yoruba
zh	Chinese
zu	Zulu

Specifications

● Monitor section

Picture Size
DNN990HD
: 6.95 inches (diagonal) wide
: 156.6 mm (W) x 81.6 mm (H)
DNN770HD
: 6.1 inches (diagonal) wide
: 136.2 mm (W) x 72.0 mm (H)

Display System
: Transparent TN LCD panel

Drive System
: TFT active matrix system

Number of Pixels
: 1,152,000 (800H x 480V x RGB)

Effective Pixels
: 99.99 %

Pixel Arrangement
: RGB striped arrangement

Back Lighting
: LED

● DVD player section

D/A Converter
: 24 bit

Audio Decoder
: Linear PCM/Dolby Digital/dts/MP3/WMA/AAC

Video Decoder
DNN990HD: MPEG1/ MPEG2/ DivX
DNN770HD: MPEG1/ MPEG2

Wow & Flutter
: Below Measurable Limit

Frequency Response
DNN990HD
- 96 kHz : 20 – 20,000 Hz
- 48 kHz : 20 – 20,000 Hz
- 44.1 kHz : 20 – 20,000 Hz

DNN770HD
- 96 kHz : 20 – 22,000 Hz
- 48 kHz : 20 – 22,000 Hz
- 44.1 kHz : 20 – 22,000 Hz

Total Harmonic Distortion
DNN990HD: 0.008 % (1 kHz)
DNN770HD: 0.01 % (1 kHz)

S/N Ratio (dB)
DNN990HD: 100 dB (DVD-Video 96 kHz)
DNN770HD: 98 dB (DVD-Video 96 kHz)

Dynamic Range
DNN990HD: 100 dB (DVD-Video 96 kHz)
DNN770HD: 98 dB (DVD-Video 96 kHz)

Disc Format
: DVD-Video/ VIDEO-CD/ CD-DA

Sampling Frequency
: 44.1/48/96 kHz

Quantifying Bit Number
: 16/20/24 bit

● USB interface section

USB Standard
: USB 2.0 High speed

File System
: FAT 16/ 32

Maximum Power Supply Current
DNN990HD
iPod/iPhone: DC 5 V ⎓ 1 A
USB: DC 5 V ⎓ 500 mA
DNN770HD
: DC 5 V ⎓ 1 A

D/A Converter
: 24 Bit

Video Decoder
: MPEG1/MPEG2/MPEG4/WMV/H.264

Audio Decoder
: MP3/ WMA/ AAC/ WAV

● SD

SD Standard
DNN990HD: SD/ SD-HC
DNN770HD: microSD/ microSD-HC

Compatible File System
: FAT 12/16/32

Capacity
: Maximum 32G Byte

Video Decoder
: MPEG1/MPEG2/MPEG4/WMV/H.264

Audio Decoder
: MP3/WMA/AAC/WAV

● Network section

uPnp
: Media Controller/Media Server/Media player/Media Renderer

Video Decoder
: MPEG1/MPEG2/MPEG4/WMV/H.264

Audio Decoder
: MP3/WMA/AAC/WAV

● Wi-Fi section

IEEE Standard
: 802.11b/g/n

Security Support
: 64/128bit WEP / WPA & WPA2

Frequency Range
: 2.401 – 2.473 GHz

Transfer rates (MAX)
: 802.11n(150 Mbps) / 802.11g(54 Mbps) / 802.11b(11 Mbps)

Output Power
: 16 – 18dBm (CCK), 13 – 15dBm (OFDM)

● Bluetooth section

Technology
: Bluetooth Ver4.0 Certified

Frequency
: 2.402 – 2.480 GHz

Output Power
: +4dBm (MAX), 0dBm (AVE), Power Class2

Maximum Communication Range
: Line of sight approx. 10m (32.8 ft)

Profile
- HFP (Hands Free Profile)
- SPP (Serial Port Profile)
- A2DP (Advanced Audio Distribution Profile)
- AVRCP (Audio/Video Remote Control Profile)
- OPP (Object Push Profile)
- PBAP (Phonebook Access Profile)
- Multi Profile support

● DSP section (DNN990HD)

Graphics equalizer
Band: 13 Band
Frequency (BAND1 – 13)
: 62.5/100/160/250/400/630/1k/1.6k/2.5k/4k/6.3k/10k/16k Hz

Gain
: -9/-8/-7/-6/-5/-4/-3/-2/-1/0/1/2/3/4/5/6/7/8/9 dB

X'over
Front/ Rear High pass filter
Frequency: Through, 30/ 40/ 50/ 60/ 70/ 80/ 90/ 100/ 120/ 150 / 180/ 220/ 250 Hz
Slope: -6/-12/-18/-24 dB/Oct.
Subwoofer Low pass filter
Frequency: 30/ 40/ 50/ 60/ 70/ 80/ 90/ 100/ 120/ 150/ 180/ 220/ 250 Hz, Through
Slope: -6/-12/-18/-24 dB/Oct.

Position
Front / Rear /Subwoofer Delay
: 0 – 20.0ft (0.07ft Step)
Gain
: -8 – 0 dB

Subwoofer level
: -50 – +10 dB

● FM tuner section

Frequency Range
: 87.9 MHz – 107.9 MHz (200 kHz)

Usable Sensitivity (S/N : 30 dB)
: 7.2 dBf (0.8 μV/75 Ω)

Quieting Sensitivity (S/N : 50 dB)
: 10.2 dBf (1.13 μV/75 Ω)

Frequency Response (± 3.0 dB)
: 30 Hz – 15 kHz

S/N Ratio (dB)
: 75 dB (MONO)

Selectivity (± 400 kHz)
: ≥ 80 dB

Stereo Separation
: 45 dB (1 kHz)

● Digital FM tuner section

Frequency Range
: 87.9 MHz – 107.9 MHz (200 kHz)

Frequency Response (± 3.0 dB)
: 20 Hz – 20 kHz

S/N Ratio (dB)
: 75 dB (STEREO)

● AM tuner section

Frequency Range (10 kHz)
: 530 kHz – 1700 kHz

Usable Sensitivity
: 28 dBμ

● Digital AM tuner section

Frequency Range (10 kHz)
: 530 kHz – 1700 kHz

Frequency Response (± 3.0 dB)
: 40 Hz – 15 kHz

S/N Ratio (dB)
: 75 dB (STEREO)

● Video section

Color System of External Video Input
: NTSC/PAL

External Video Input Level (RCA/mini jack)
: 1 Vp-p/ 75 Ω

External Audio Max Input Level (RCA/mini jack)
: 2 V/ 25 kΩ

Video Input Level (RCA jacks)
: 1 Vp-p/ 75 Ω

Video Output Level (RCA jacks)
: 1 Vp-p/ 75 Ω

Audio Output Level (Mini jack)
: 1.2 V/ 10 kΩ

● Audio section

Maximum Power (Front & Rear)
: 50 W x 4

Full Bandwidth Power (Front & Rear) (4 Ω, 14.4 V, 1 % THD)
: 22 W x 4

Preout Level (V)
DNN990HD: 5 V/ 10 kΩ
DNN770HD: 2 V/ 10 kΩ

Preout Impedance
DNN990HD: ≤ 80 Ω
DNN770HD: ≤ 600 Ω

Speaker Impedance
: 4 – 8 Ω

Tone (DNN770HD)
Bass: 100Hz ± 8dB
Middle: 1kHz ± 8dB
Treble: 10kHz ± 8dB

● External SW (DNN990HD)

Maximum Power Supply Current
: 500 mA

● Navigation section

Receiver

: High-sensitivity GPS receiver

Reception Frequency

: 1575.42 MHz (C/A code)

Acquisition Times

Cold : 26 seconds (typ)
(All satellites at -130 dBm Without aiding)

Update Rate

: 1/second, continuous

Accuracy

Position: <2.5 meters, CEP, at -130 dBm
Velocity: 0.1 meter/sec RMS

Position Method

: GPS

Antenna

: External GPS antenna

● General

Operating Voltage

: 14.4 V (10.5 – 16 V allowable)

Maximum Current Consumption

: 10 A

Installation Dimensions (W × H × D)

: 182 × 112 × 163 mm
7-2/16 × 4-6/16 × 6-7/16 inch

Operational Temperature Range

: -10 °C – +60 °C

Weight

DNN990HD: 2.6 kg (5.7 lbs)
DNN770HD: 2.1 kg (4.6 lbs)

NOTE

- Although the effective pixels for the liquid crystal panel is given as 99.99% or more, 0.01% of pixels may not light or may light incorrectly.

Specifications subject to change without notice.

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- **Requirements Pandora®:**

  Requirements for listening to the Pandora® are as follows:
  - A smartphone with the latest Pandora application installed.
  - A Pandora account (if you do not have an account, create one for free using the mobile app or on www.pandora.com).
  - An active internet connection.

  iPhone or iPod touch
  - Apple iPhone or iPod touch with iOS 3 or later installed
  - Latest version of the Pandora application (search App Store for Pandora and install).
  - iPhone/ iPod touch connected to this unit with a KCA-iP202.

  Android™
  - Latest version of the Pandora Android application (search Google Play for Pandora and install).
  - Bluetooth must be built in and the following profiles must be supported.
    - SPP (Serial Port Profile)
    - A2DP (Advanced Audio Distribution Profile)

  BlackBerry®
  - Visit www.pandora.com from the built in browser to download the Pandora application.
  - Bluetooth must be built in and the following profiles must be supported.
    - SPP (Serial Port Profile)
    - A2DP (Advanced Audio Distribution Profile)

  Note
  - Pandora® is available only in the U.S, Australia and New Zealand.
  - Because Pandora® is a third-party service, the specifications are subject to change without prior notice. Accordingly, compatibility may be impaired or some or all of the services may become unavailable.
  - Some functions of Pandora® cannot be operated from this unit.
  - For issues using the application, please contact Pandora® at pandora-support@pandora.com

- **Requirements iHeartRadio™:**

  Requirements for listening to iHeartRadio are as follows:
  - In the application on your device, log in and create a free account with iHeartRadio.
  - Internet connection by 3G, LTE, EDGE, or WiFi.

  Note
  - Because iHeartRadio™ is a third-party service, the specifications are subject to change without prior notice. Accordingly, compatibility may be impaired or some or all of the services may become unavailable.
  - Some iHeartRadio™ functionality cannot be operated from this unit.

Safety precaution

● FCC WARNING

This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.

NOTE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment may cause harmful interference to radio communications, if it is not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

⚠CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

JVC KENWOOD Corporation
2967-3, ISHIKAWA-MACHI,
HACHIOJI-SHI, TOKYO, JAPAN

THIS PRODUCT COMPLIES WITH DHHS RULES 21 CFR SUBCHAPTER J IN EFFECT AT DATE OF MANUFACTURE.

Location: Top plate

● IC (Industry Canada) Notice

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

(1)This device may not cause interference, and
(2)this device must accept any interference, including interference that may cause undesired operation of the device.

The term "IC: " before the certification/ registration number only signifies that the Industry Canada technical specification were met.

⚠CAUTION

This equipment complies with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated keeping the radiator at least 20cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

- Contains Transmitter Module

  FCC ID : RKXFC6000S
- Contains Transmitter Module

  IC: 5119A-FC6000S

About W02-5613 (USB Wi-Fi® Adapter)

The Wi-Fi Adapter is attached to this unit when shipped from the factory. When the adapter is removed, store it in a safe place.

HD Radio®

This HD Radio receiver enables:

PSD

HD2/HD3

Bookmark

Digital Sound

iTunes® Tagging

Artist Experience

Wi Fi® CERTIFIED

SD™ HC

micro SD™ HC

DVD VIDEO™

DOLBY DIGITAL

dts® 2.0 Channel

DIVX™

Bluetooth®

SiriusXM READY

Made for iPod iPhone

Designed for Windows Media™

Works With PANDORA®

iHeart RADIO

KENWOOD